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July 14, 1989

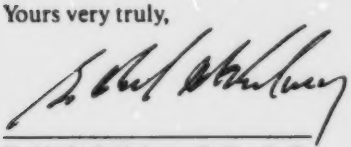
Hon. Frank McKenna
Premier of New Brunswick
Fredericton, New Brunswick

Dear Mr. Premier:

In accordance with the terms of reference of the review process as set out in the Order in Council of November, 1988, we have the honour to present to you the Report of The Commission on Selected Health Care Programs.

We would like to thank you for the opportunity to have participated in this important undertaking.

Yours very truly,



E. Neil McKelvey, O.C., Q.C.
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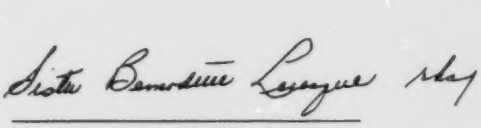

Sister Bernadette Levesque r.h.s.j.
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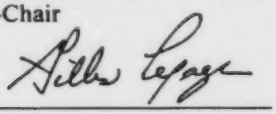
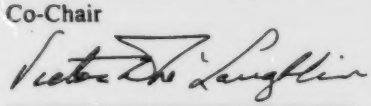


Gilles Lepage
Commissioner



Victor McLaughlin, M.D.
Commissioner

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CHAPTER 1

Introduction

Terms of Reference

The Commission was established by the Government of New Brunswick in early December 1988. Our mandate was described in Terms of Reference as follows:

1. To examine the service mandates and management models of specific components of the current health care system (hospitals, medicare and prescription drug programs), and the interrelationships between the components in so far as they affect the cost of the components.

2. To examine utilization of hospital services, medicare and prescription drug programs and the growth rates in these programs and to identify possible options that would allow for better cost containment.

3. To examine the costs associated with each of the specific components and the current methods of funding and to identify possible options that would allow for better allocation and use of all available resources.

4. To assess the level of funding for these programs and make comparisons with other jurisdictions.

5. To report findings and make recommendations consistent with the public interest and the general welfare of the province of New Brunswick on how the health care services can be better structured, organized and distributed so that the various components of the system can function in the most efficient and cost effective manner.

6. To submit the completed report to the government of New Brunswick within a six month time frame.

Work Plan

Introduction

In recognition of the magnitude of the task and the limited time and funds available, we determined that we should function according to two guiding principles. Firstly,

that for practical purposes the formal Terms of Reference could be summarized as three primary tasks:

1. To examine the costs and funding for New Brunswick's hospital, medicare and prescription drug programs,

2. To identify possible options for better use of available resources; and

3. To make recommendations on how to improve the efficiency and cost-effectiveness while maintaining the quality of these programs.

Secondly, that in order to produce feasible recommendations, under the constraints of time and funding, we would have to work according to an efficient work plan. This work plan was the subject of our first meeting.

Timing and funding limitations also caused us to conclude very early in the process that we would not be able to consider all issues related to the Terms of Reference and that on many other issues we would only be recommending a process or additional activity to pursue the identified opportunities for improved cost-effectiveness. Furthermore, we contend that our review and this report should be viewed as only the first step in an ongoing reappraisal of health services and health policy in New Brunswick.

There were four main streams in the process that was followed.

Involvement of Interested Parties

Individuals and organizations were encouraged to provide input to us consistent with the Terms of Reference. Participation took three forms.

The key stakeholder organizations were individually requested to submit briefs, they were given the opportunity to participate in presentations by external researchers and they then held discussions with us. These groups were the New Brunswick Hospital Association, the New Brunswick Medical Society, the New Brunswick Pharmacists' Association and the Nurses Association of New Brunswick.

The general public and other organizations were notified of our interest in receiving briefs through advertisements in provincial daily and weekly newspapers in late December 1988 and early January 1989. Those who submitted briefs were contacted and offered an opportunity to meet with us. A list of those who submitted briefs and a list of those who met with us are included in Appendix A.

The Government of New Brunswick was directly involved in the process at several stages. Initially we heard presentations on the programs under review and the province's fiscal situation from senior staff of the Department of Health and Community Services and the Department of Finance. In the latter stages of the process we met again with senior staff to assess the practicality of the recommendations under consideration.

Commission Initiated External Research

Outside assistance from leading Canadian analysts and thinkers in health care was engaged to address five major topics of interest to us.

(1) Utilization Analysis

An analysis was done to measure and evaluate changes over time in use of physicians and hospital services, including comparisons among areas of the province by patients' age and sex. This analysis was conducted under the direction of Michael Gormley a health economist who at the time of engagement was employed by the Saskatchewan Department of Health and is now on the staff of the British Columbia Medical Association. Primary data for this activity was obtained with the assistance of the Department of Health and Community Services.

(2) The Determinants of Health and Limitations of the Health Care Delivery System

This topic was discussed in a meeting with Dr. Fraser Mustard, President of The Canadian Institute for Advanced Research, an established Canadian expert in the field of alternative approaches to creating healthy populations.

(3) Factors Contributing to Cost and Utilization Growth in Health Care

John Horne, Ph.D, Professor in the Department of Community Health Sciences, University of Manitoba, was instrumental in the development of information on this topic with the assistance of Professor Glen Beck, Ph.D, of the University of Saskatchewan. The primary focus of this activity was to develop an understanding of why health services utilization and expenditures are increasing.

(4) Methods for Containing or Reducing Utilization and Cost

Professors Jane Fulton, Ph.D, and Ralph Sutherland, M.D, of the Faculty of Administration, University of Ottawa, reported on this topic from a broad system perspective. Mark Hundert, President of Medicus Canada dealt with the internal hospital management component.

(5) System Organization and Funding Options to Improve Cost- Effectiveness

This topic was also the responsibility of Professors Fulton and Sutherland.

Literature Review

In the order of one hundred documents on relevant topics were reviewed. These sources were published and unpublished academic papers, newspaper and journal articles, government annual reports and other reports, presentations, books and the reports of earlier panels, task forces and commissions in Canada. The full list of this material is contained in Appendix B.

Interaction with Similar Bodies Outside the Province

We had three opportunities to benefit directly from the experience of similar bodies who had completed their work or were still active at the time of meeting. The first of these occasions was mid-March when the Nova Scotia Royal Commission on Health Care invited us to participate in presentations of research conducted for them on the topics: Interprovincial Comparison of Health Expenditures; Health Status Indicators and Demographic Trends for Nova Scotia (including comparisons with the other Atlantic Provinces, Saskatchewan and Canada); and Fiscal Federalism from the Perspective of Nova Scotia.

The second point of contact was again with representatives of the Nova Scotia Royal Commission on Health Care. We invited their participation in presentations related to the research described in the section on Commission Initiated External Research.

The third and major interaction event was a two day meeting of Health Commissions/Councils both past and present hosted by the Premier's Commission on Future Health Care for Albertans.

Report of the Task Force on New Brunswick Health Care January, 1978

A provincial task force with similar terms of references to ours was established in February 1977 and reported in January 1978.

We reviewed the status of implementation of the recommendations by this task force and were generally impressed by the extent to which follow-up has occurred. There are, however, some very important areas where sufficient action has not occurred, such as: restructuring the facilities and services network; developing the planning and evaluation capability of information systems; and manpower planning. Recommendations addressing these areas are made in this report.

Concluding Phases

All but one of the information gathering activities were concluded in early May. Delays in the availability of data from the Department of Health and Community Services caused postponement of the utilization analysis component of the external research reporting to early June.

The remaining time was spent in formulating the findings from this information, in concluding on recommendations to be made and in documenting the results in this report.

CHAPTER 2

The New Brunswick Health Care System

Introduction

This chapter presents a description of the major health care programs included in our mandate: Hospital Services, Medicare and the Prescription Drug Program. These programs account for more than 75 percent of the total operating budget of the Department of Health and Community Services. Each is considered individually.

Hospital Services

Legislation

Public Hospitals Act and Regulations - regulates the number of hospitals, the services they will provide, conditions for admissions and their administrative and financial standards.

Hospitals Services Act and Regulations - defines the methods and procedures by which payments may be made to hospitals for services provided to eligible New Brunswick residents.

System Size, 1988-89

Hospitals	35
Regional	7
District	13
Community	11
Specialty - Psychiatric	2
- Rehabilitation	1
- Extra-Mural	1
Approved Beds	4848
General	4128
Psychiatric	720

Staff (Full-time equivalents)	12015	
Patient Care	6844	(57%)
Patient Support Services	3810	(32%)
General Administration	1361	(11%)

Major Expenditure Components (1987-88)

DRUGS & MEDICINE (3.3%)

SUPPLIES (17.7%)

MEDICAL SUPPLIES (4.7%)

SALARIES/WAGES/BENEFITS (74.2%)

General Hospitals
Resource Distribution, 1987-88

Hospital Size	Number	Beds	Patient Days	Staff	Expenditures
200 + Beds	8	64%	72%	72%	75%
50-199	12	28%	21%	22%	19%
1-49	12	8%	7%	6%	6%

Bed Guidelines for General Hospitals (Per 1000 Population)

Acute	4.1	
Extended Care	0.9	
Rehabilitation	0.25	Regional
Psychiatric	0.25	Hospitals Only
Total	5.5	

System Activity, 1987-88 (Approximate)

Separations - Total	120,000
- per 1000 population	169
Patient Days - Total	1,300,000
- per 1000 population	1,800
Average Length of Stay (Days)	11.0
Occupancy Rate	82%
Out-Patient/Emergency Visits	
- Total	948,000
- per 1000 population	1,300

In-Patient Surgery Procedures	
- Total	47,400
- per 1000 population	67
Day Surgery Procedures - Total	26,300
- per 1000 population	37
Average Cost Ranges - per bed	$ 125 - 353
- per bed/year	$35,000 - 105,000

Medicare

Legislation

Medical Services Payment Act and Regulations.
Hospital Services Act and Regulations.

Objectives

(1) To ensure necessary medical and selected health services are financially accessible to eligible New Brunswick residents.

(2) To promote the availability, accessibility and efficiency of such services throughout the Province on an equitable basis.

(3) To provide information from the Medicare Database to support Departmental Programs.

Medicare Includes:

(1) Payments for Services

- Fee-For-Service Payments
- Sessional Payments
- Physicians' Salaries
- Optometrical Services (under 19 years of age)
- Dental Surgery
- Out-of-Province Physician Payments

(2) Funding For Recruitment of MD's

- Bursaries
- Residency Training Program - Teaching Physicians
  - Residents
- Anaesthesia Stipends
- Incentive Programs - Northern Service Development
  - Southern Service Development

(3) Registration of Eligible Residents

- Registration of Eligible Residents
- Public Enquiries

(4) Medicare Database

- Provision of Medicare Information

Prescription Drug Program

Objectives

To ensure that approved prescription and non prescription drugs are financially accessible to specific target groups in New Brunswick.

Prescription Drug Program - Persons Eligible

- Individuals 65 +
- Nursing Home Residents
- Individuals with Cystic Fibrosis
- Individuals requiring Cyclosporin (Organ Transplants)
- Individuals requiring Human Growth Hormone
- Individuals with AIDS receiving AZT

Legislation

Prescription Drug Payment Act and Regulations
Pharmacy Act and Regulations

Health Services - Persons Eligible

- Income Assistance Recipients and their dependents
- Child Welfare Clients

Program Management - Blue Cross

Legislation

Health Services Act and Regulations

Environmental Considerations

1. Since the public sector funds hospitals and medical service costs and federal legislation reinforces this, both patients/consumers and providers have been largely "isolated" from direct awareness of costs.

2. The system is decentralized with autonomous delivery management structures (separate boards for each facility) coupled with centralization of funding.

3. Most of the patient care service activity of hospitals is directed by physicians.

4. Considerable time, energy and resources are often required in discussing and "negotiating" with and among autonomous units.

5. There is generally a stronger incentive/pressure for service maximization than for efficient resource management at the local level due to the nature of the system.

6. There is often a competitive/adversarial approach toward other facilities (and the provincial government) rather than one of cooperation to achieve common objectives.

7. There are no provincial level service guidelines or protocols for utilization (clinical productivity), i.e. admission, discharge, length of stay, etc. . . These decisions are made on an individual basis by doctors with no general frame of reference provided for comparative analysis.

8. There are instances of service duplication and service rationalization is usually accomplished with difficulty and takes considerable time. One effect of service duplication is to limit resources available for service development.

9. Tertiary level services tend to be interdependent and require a "critical mass" of service volume, personnel expertise, equipment, etc. They cannot be seen as autonomous functions and distributed in an unplanned manner.

10. The Department of Health and Community Services is sometimes required to become involved in detailed aspects of hospital financial and service management in an effort to exert financial control or bring about service changes.

11. The Hospital Service Master Plan, which was first released in 1987, has given the department (government) and hospitals a valuable tool with which to help guide the development and rationalization of services. It is intended to be updated on a regular basis so that it remains relevant and useful. A key related item, the Medical Specialist Staffing Guidelines, has yet to be introduced.

12. Hospital Service Standards have also received considerable attention over the past several years, both at the national and provincial levels and a wide range of quality standards relating to staffing and procedures/protocols have been developed. (Not specifically focused on efficient utilization).

13. Volunteers ranging from board members to hospital auxiliaries play an important role in the functioning of the hospital system.

14. The attention of system components and the public tend to be focused primarily on system inputs, i.e. money, specific services, people, buildings, beds, etc., with limited emphasis placed on determining the outputs or results and assessing them against intended objectives. There are several reasons for this including the nature of the system itself, the fact that inputs are more tangible and visible and since results-oriented information systems are not well developed.

15. There is increasing emphasis being placed on alternatives to in-patient service delivery. This includes day surgery, ambulatory (outpatient, community-based) and in-home services (extra-mural hospital, home care, etc.).

CHAPTER 3

Cost and Utilization Trends and Contributing Factors

Introduction

The information presented in this Chapter is mainly the result of analyses conducted on data obtained from the Department of Health and Community Services by John Horne[1] and Michael Gormley[2].

Detailed technical reports have been prepared by these authors and interested readers may request copies from the Department. Only major findings are presented here.

Overview of Health Expenditures in New Brunswick , 1975-85.

Per capita public and private expenditures on health care increased 235 percent from $413 to $1,383, the largest increase recorded by any province but only enough to move New Brunswick from the bottom of the provincial rankings to eighth position, ahead of Newfoundland and Prince Edward Island.

Most of the recorded increase in per capita health spending was due to higher prices. Estimates based on the national experience suggest that prices rose 104 percent over the decade, implying a constant dollar (or "real") increase of 64 percent.

Compared to the nation as a whole, New Brunswick's institutional sector absorbs a relatively high (58 percent versus 52 percent) percentage of the health care dollar. Over the decade 1975-85, the institutional sector has "lost share" nationally (from 54 percent to 52 percent), but "retained share" (at roughly 57 percent) in New Brunswick.

As in other provinces, long-term care facilities (nursing homes, etc) are increasing their share of both institutional and total health care spending. Over the decade, New Brunswick's hospitals share of the total dollar fell by 5.4 percent, while other institutions' share increased by 6.1 percent.

Physicians' share of total health spending remained stable at 12.6 percent over the decade.

Expenditures on prescribed drugs increased dramatically over the decade, their share value rising from 4.8 percent to 8.0 percent. In Canada as a whole, the growth rate was slower and the share value (i.e., the percent of total expenditures accounted for by prescribed drugs) rose from 4.7 percent to only 5.5 percent.

Public and private spending per capita on institutional services in New Brunswick was 3 percent below the national average. For hospitals, the figure was 4 percent below average, while for other institutions, the figure was 1 percent above average. in overall health spending per capita, the Atlantic Provinces are ranked Nova Scotia, New Brunswick, Newfoundland and Prince Edward Island. New Brunswick leads these provinces in spending on "other institutions" (long-term care facilities), but lags all three in spending on dental services and non-prescribed drugs.

In general, per capita spending in New Brunswick and the other Atlantic Provinces is less than the national average in most categories. Notable exceptions are the above average spending on hospitals in Nova Scotia, on other institutions in New Brunswick, on public health in Prince Edward Island, on non-prescribed drugs in Nova Scotia and Prince Edward Island, and on prescribed drugs in all four provinces.

In New Brunswick, as in the nation as a whole, the health care system is roughly "three parts public, one part private" in payment responsibility terms. This is another way of saying that 75 percent of all health spending flows through governments at various levels, the residual 25 percent being sourced in the private sector.

According to federal statistics, Provincial Government spending on hospital and medical services in New Brunswick rose from $609 to $871 per capita over the six year period from 1982-83 to 1988-89. The associated growth of 43.3 percent was below the national average of 48.9 percent, and insufficient to prevent a drop in ranking from seventh to eighth position.

The Hospital Program

Over the period 1981-82 to 1986-87, total expenditures by general hospitals in New Brunswick increased from $287.6 million to $445.3 million, an increase of 54.8 percent (or 9.1 percent annual average growth).

Analysis of expenditures, costs and volumes experienced by the thirty-two public general hospitals (i.e., excluding the one rehabilitation hospital, the two psychiatric hospitals and the Extra-Mural hospital) reveals:

(a) expenditure growth of 53.1 percent, from $260.1 million to $398.4 million (8.9 percent average annual);

(b) volume growth, measured by the number of patient-days, of only 1.9 percent or .4 percent annually (all of which was concentrated in the seven regional hospitals);

(c) unit cost increases, measured by $/patient-day, of 50.2 percent or 8.5 percent average annual (clearly the dominating factor in expenditure growth).

Further analysis of unit costs reveals increases in all major components including salaries and wages (47.8 percent or 8.1 percent average annual), medical/surgical supplies (73.7 percent or 11.7 percent average annual), drugs/medicines (84.5 percent or 13.0 percent average annual), and other supplies/services (49.2 percent or 8.3 percent).

Detailed analysis of the growth in salaries and wages per patient-day reveals that the major factor was the increased average hourly wage (up 42.3 percent or 7.3 percent annually), not growth in paid-hours per patient-day (up only 3.9 percent or .8 percent annually). The average hourly wage increased faster in non-nursing services (special services, education services, and general services) than in nursing services. Regional hospitals experienced the lowest increase in paid-hours per patient-day (five year increase of 1.4 percent versus 8.6 percent for the district hospitals and 10.1 percent for the community hospitals).

On a wider perspective, in 1986-87 New Brunswick exceeded the national average for public hospital beds per thousand population, and also registered higher than national average rates of hospital use (measured in both separations and patient-days per 1000 population).

New Brunswick's 32 public general hospitals had per diem costs which exceeded the national average by six percent in 1986-87. This is entirely due to the "excess costs" recorded by seven facilities with long-term units whose per diem costs were reported to be 13 percent above a comparably sized group of non-teaching hospitals in Canada. (The other twenty-five hospitals reported per diem costs that were 10 percent below the national comparison group). In these seven hospitals, all major components of cost were above the national average, but were most conspicuous in the non-salary items comprising drugs/medicines, medical/surgical supplies and other supplies/services. It is not apparent why the cost profile for these facilities is atypical of other, non teaching hospitals in Canada.

While the "volume factor" in the New Brunswick hospital experience over the period 1981-82 to 1986-87 is much less important than the "price factor" in accounting for expenditure growth among these hospitals, analysis of the population-based data describing the hospitalization experiences of all residents at both in-province and out-of-province facilities reveals:

- an overall increase of 8.7 percent in the number of patient-days, only a small fraction of which can be explained by the 1.9 percent population increase;
- an increase of 6.8 percent in "volume per capita" (i.e., patient-days per 1000 population), most of which can be explained by aging of the population over the five year period;
- a modest increase of 1.6 percent in the age-sex adjusted patient-day rate, i.e., a relatively small increase in utilization per capita (that cannot be explained by aging of the population);

- that the average increase in utilization of 1.6 percent masks a very heterogeneous mix of increases and decreases, with virtually all of the increases concentrated in the "older" age groups;

- that most of the overall increases in age-sex adjusted utilization can be localized to increased hospitalizations for mental disorders and nervous system diseases.

To summarize the above, population growth explains a relatively small proportion of the observed increase in patient-day volume. Aging of the population explains some but not all of the increases in utilization measured by both patient-days and separations per thousand population. Increased utilization, the pure "utilization factor", is an additional, albeit small element in the observed trends over this period.

The Medical Care Program

As background to the analysis of program expenditure growth, it is important to note that New Brunswick has the least number of physicians in relation to population of any of the provinces. Equivalently, it has the highest population:physician ratio. Its 1987 ratio of 830 persons per physician compares with the national average of 542. (These figures include all "active civilian physicians" and, as such, doubtlessly overstate the number of full-time practising physicians).

More accurate indications of the trend in physician supply over the review period 1982-83 to 1987-88 is provided by the department's count of "full-time equivalent physicians" (FTE) based on fee-for-service billings. Including all specialties, the FTE count rose 16.2 percent over the five year period.

Medical program expenditures, including both fee-for-service and other payments to physicians, rose 52.1 percent from $94.9 million to $144.3 million over the five year period 1982-83 to 1987-88.

Detailed analysis of the fee-for-service component of total expenditure growth over the five year period reveals:

- fee-for-service expenditure growth of 47.5 percent (8.1 percent average annual) from $73.5 million to $108.4 million);

- a "price effect" based on reported average fee increases of 16.2 percent (3.0 percent average annual);

- an implied "volume effect" based on fee-adjusted expenditures of 27.0 percent;

- a trivial "population effect" based on a inconsequential decrease (0.1 percent) in the insured population;

- a substantial increase in "volume per capita" of 27.1 percent (4.9 percent average annual) based on fee-adjusted per capita expenditures;

- that aging of the population explains very little of the increase in "volume per capita" (aging per se increased per capita service use by only 1.8 percent over the five years, or 0.4 percent annually).

- that the general increase in use, the so-called "utilization factor", accounts for most of the increase in "volume per capita", based on the 24.8 percent increase (4.5 percent annual) in age-sex adjusted use per person.

Further, more detailed analysis of the 24.8 percent increase in utilization per person over the five years reveals:

- that most of this increase is attributable to increased services per-patient, with only a small portion attributable to increased numbers of patients in the insured population;

- that the increase in use per person was evident in all age groups, but was most conspicuous among persons 75 years and older;

- that the estimated increase varies widely from this figure when payments and services are sub-divided by physician specialty (the estimates range from "lows" of 15.6 percent and 19.5 percent for General Practitioners and Surgical Specialists respectively; the caveat must be hastily appended that some of these increases could contain some "fee effects" that were specialty specific and therefore escaped detection in the earlier global fee adjustment of 16.2 percent noted above);

- that the estimated increase varies widely from this figure when payments and services are sub-divided by type of service. To illustrate, age-sex and fee-adjusted payments per capita rose an estimated 19.2 percent for office visits, 82.4 percent for nursing home visits, 41.5 percent for major consultations, 66.7 percent for psychotherapy and 41.6 percent for major diagnostic and therapeutic procedures; with the same caveat regarding undetected fee increases as was noted above.

The budgetary impact of utilization growth in the medical care plan over the five year review period is estimated at $21.5 million, an amount which based on 1987-88 per capita medical expenditures would meet the service needs of a city of 149,000.

Comparison with the Saskatchewan experience over the eight year period 1977-78 to 1985-86 reveals a different mix of volume, price and utilization effects. Most striking is the fact that age-sex adjusted use per person increased at 2.1 percent annually, while in New Brunswick it increased at 4.5 percent annually (though here again a caveat applies since the Saskatchewan study involved a much more rigorous adjustment for fee changes than was possible with the New Brunswick data).

The Drug Program (including the Prescription Drug Program and the Health Services Program)

Expenditures under the Prescription Drug Program increased at an average annual rate of 11.4 percent over the four year period 1984-85 to 1988-89. Analysis reveals that:

- included in this expenditure growth was an annual increase in claims volume of 5.3 percent and an increase in cost per claim of 5.8 percent;
- the increase in claims volume primarily reflects an increase in the eligible population (4.9 percent annual growth), and only secondarily an increase in claims per eligible person (0.4 percent annually);
- the small annual increase in claims per person reflects a combination of annual decreases in the number of active beneficiaries per eligible person (-1.4 percent) and annual increases in the number of claims per active beneficiary (1.9 percent).

Expenditures under the Health Services Program increased at a comparatively faster annual rate of 15.4 percent over the same four year period. Analysis reveals that:

- the claim volume increased 6.5 percent annually;
- the cost per claim increased 8.4 percent annually;
- the increase in claims volume was due to both increases in the eligible population (2.0 percent annually) and (in contrast to the Prescription Drug Program above) in claims per eligible person (4.3 percent);
- the annual increase in claims per person reflects a combination of increases in the number of active beneficiaries per person (1.7 percent annually) and the number of claims per active beneficiary (2.5 percent).

Unfortunately, data did not permit meaningful estimates of drug price increases over the period 1984-85 to 1988-89.

To illustrate the effect of new drug therapies on program cost, it may be noted that 33 of the top 200 drugs (ranked by drug materials cost) in the first six months of 1988 had been added to the program on or after January 1985. They involved drug materials costs of $2.6 million and accounted for 16 percent of the drug materials costs on the top 200 list.

To illustrate the instability of the top 200 list over time and, as well, another effect of "new" drugs on program expenditures, it may be noted that 57 drugs on the top 200 list during the first six months of 1988 were not among the top 200 during the same period in 1985. These 57 drugs involved materials costs of $3.54 million and accounted for 22 percent of all materials costs on the list.

Regional Trends and Variations in Patterns of Use

Introduction

In order to permit an analysis of variations in service use between residents of geographical areas each of the seven health regions was divided into two areas, urban and rural. The urban area was defined by the census subdivisions comprising the major centre in each region - ie., Moncton, Saint John, Fredericton, Edmundston, Campbellton, Bathurst and Chatham-Newcastle. The remaining census subdivisions in each region were designated as the rural areas.

Readily available data did not permit analysis of the regional differences related to the Prescription Drug Program, but results are presented for Hospital Services and the Medical Services programs.

For purposes of this report the regions were grouped as north (Region 4, 5 and 6) and south (Regions 1,2,3 and 7). Most figures presented are age-sex adjusted to the 1986 provincial population.

1986-87 Regional Variations in the Medical Care Program

Total Medicare expenditures per person were 5.8 percent higher for urban than for rural residents and 10.7 percent higher in the south than in the north.

The use of specialists with Canadian certification was a 40.8 percent higher for urban than for rural residents and 43.7 percent higher in the south than in the north. This is accounted for by more consultations and surgery plus associated anaesthesia. Excluding emergency department visits general practitioner services provided to rural residents were only 90.9 percent of what was received by those in urban areas. Northern general practitioner use is 16.2 percent higher than in the south. This is largely due to their greater involvement in providing major surgery and anaesthesia in these regions.

The differences in the use of psychotherapy and counselling services between the north and south are particularly striking. There is much greater use in the south, but general practitioner provided services are not notably different between north and south. The difference is due to a four fold greater use of specialist psychotherapy in the south.

For all major service categories the residents of the cities of Moncton, Saint John and Fredericton were relatively higher users than those in the remainder of the provinces as shown in the following table:

Percentage of Population Receiving
a Service 1986-87

	Major Cities	Remainder of Province
General Office Visit	74.1	66.2
Special Exam In Office	22.7	21.7
Major Consult	26.5	22.0
Psychotherapy	3.9	1.8
Counselling	5.7	4.9
Major Diagnostic Procedure	6.0	5.5
Major Therapeutic Procedure	2.3	2.0
Major Surgery	6.0	5.6

Regional Variations in the Growth in Use from 1981-82 to 1986-87

Medical Services

Considerable efforts (through physician recruitment incentives, improvement of regional hospital programs and physician training arrangements with Quebec universities) have been made to reduce the gaps in service availability between the north and the south. But the question remains, has the north been catching up? It is not possible to be precise on the change in age-sex adjusted use per person because information on price changes (the fee schedule) was not available. Nevertheless, it is possible to draw conclusions concerning relative changes in use - ie., was the change in use greater in one region than another?

Unfortunately the gaps appear to be growing, rather than closing. Northerners have always had a higher dependence on general practitioners, but southerners are catching up. In addition the north-south gap with respect to use of specialists' services has grown. Overall, whereas use was virtually equal (as measured by total expenditures per person) in 1981-82, there now appears to be significant (10.7 percent) north-south gap.

The major difference related to general practitioners' services was the change in use of urban residents in the north. Their increased cost per person was much lower than the rest of the province - only 17.1 percent compared with 30.3 to 36.1 percent else-

where. The greatest growth occurred in the southern urban areas.

For specialists' services, increases in the south exceeded those in the north - 46.2 percent compared with 29.8 percent.

The changes in service gaps among areas of the province are summarized below.

	North vs South	Rural vs Urban
General Practitioner Services	Gap is closing, ie., Southern use catching up to Northern, because of increase for South-Urban, and relatively small change for North-Urban.	Very little change. Both rural and urban use changed by about same amount.
Specialist Services	Gap is widening, ie., North is falling further behind South.	Little change, though widening, with urban increase somewhat higher than rural.
All Services	In 1981-82, very little difference as greater specialist use in South balanced by greater GP use in North. By 1986-87 significant gap has occurred because of relatively greater changes in Southern use for GP's and Specialists.	Little change, though gap has widened somewhat.

Hospital Services

Notable differences in utilization of hospital in-patient services were found among areas of the province for 1986-87. The most significant of these are the following:

- Relatively high hospital admission rates in Regions 5 and 7 generally and in the rural portion of Region 6.
- Relatively higher admission rates for rural residents compared with urban residents in all regions except 5, where the opposite occurs.
- Average days per admission were the highest for the urban residents of Regions 1,2,3 and 4.
- In each region average days per admission were higher for urban residents than for rural.

Changes were noted for 1986-87 hospital use compared with 1981-82:

- The greatest increases in admission rates occurred in the urban areas of Regions 2,5 and 6; the lowest for the rural area of Region 5.
- Average days per admission increased most significantly in the rural area of Region 2 and the urban area of Region 3.
- Average days per admission showed the largest decreases for the rural area of Region 1, the urban areas of Regions 2 and 5 and throughout Region 7.

Relatively excessive use of hospital in-patient services appears in the urban area of Region 2 and throughout Region 5 as measured by patient days per capita. The highest rate (Region 5 urban) exceeded the lowest (Region 1 rural) by 89 percent. This is largely due to use associated with admissions that conclude in the death of the patient. In the Region 2 urban area cases this is due to an excessively long average length of stay per admission. The Region 5 explanation is an urban area admission rate for each case that is twice the provincial average and a relatively high average length of stay. In addition a relatively high admission rate was identified for the rural residents of Region 4.

Demography - Implications for the Future

New Brunswick's population is growing at a slower rate than that of the country as a whole. It is expected that the trend will continue over the next decade, so that in the year 2001 the province's population will be 736,000, only 3.6 percent more than the 1986 census population. Population growth, therefore, will not be significant as it is only increasing at about 0.2 percent per year.

There will , however, be a significant shift in the age composition of the population as shown in the table below:

Age Group	1986	%	2001	%
0-14	161,700	22.8	133,000	18.1
15-24	124,500	17.5	99,000	13.5
25-64	345,200	48.6	407,000	55.3
65 +	78,900	11.1	97,000	13.2

This table does show an increase in the oldest age group, the 65 and over, however, this will be gradual - about 1.4 percent per year.

Age has been associated with higher utilization of health services and, so long as the system continues to rely heavily on institutional services, the increasing numbers in the older age groups will put greater pressure on the system to operate efficiently.

If age group specific hospital admission rates and overall average length of stay were to remain at the current levels, population aging on its own will, by the year 2001, effect hospital use by 340 bed-equivalents. This figure is derived from the following calculations:

Age Group	Current Admission Rate	Forecasted Population 2001	Total Projected Admissions 2001	Current Admissions	Increase in Admissions
0-14	117.5	133,000	15,628	19,021	-3393
15-64	145.4	506,000	73,572	68,264	+ 5308
65 +	442.0	97,000	42,874	34,833	+ 8041
Total		736,000	132,074	122,118	+ 9956

Bed-equivalent in 2001 = 9956 admissions x 10.6 days/admission ÷ 0.85 beds occupied ÷ 365 days = 340 beds

As for medicare the analysis in earlier sections of this Chapter show that noted demographic changes on their own will not significantly affect medical services utilization and costs in the future.

[1]John Horne. Factors Contributing to Cost and Utilization Growth in Health Care. University of Manitoba, Winnipeg 1989.

[2]Michael Gormley. Preliminary Estimates of Utilization of Physician and Hospital Services - 1981/82 and 1986/87. Vancouver, 1989.

CHAPTER 4

The Fiscal Environment

The purpose of this chapter is to provide a picture of the Province's financial situation and to relate health care expenditures to provincial taxes. For eight consecutive years since 1981-82 New Brunswick has had an ordinary account deficit. At the end of the 1988-89 fiscal year the provincial net debt had risen to more than $3 billion. This amount was equal to about 30 percent of the Gross Domestic Product. The annual interest on the public debt amounts to over $430 million and consumes 13.3 percent of the Ordinary Account Revenue. Funds allocated to the Department of Health and Community Services for health services account for almost 25 percent of total ordinary account spending. In addition, a large share of the interest payment on the public debt is the result of earlier capital expenditures for the construction of hospitals.

The provincial government derives about 60 percent of its revenues from sources within the province, the balance comes from a variety of federal grants. The yield in fiscal year 1988-89 from the seven major taxes as estimated at the end of third-quarter are shown as follows:

Sales Tax	$ 575,000,000
Personal Income Tax	539,600,000
Provincial Property Tax	153,000,000
Gas and Motive Fuel Tax	110,800,000
Corporate Income Tax	107,400,000
Liquor Tax (net)	76,241,900
Tobacco Tax	62,000,000

In most areas of tax New Brunswick's rates rank among the highest in Canada. This means there is only a limited capacity to increase the funding available for expenditure programs by raising taxes. For example, the revenue required to increase the Department of Health and Community Services budget by 10 percent would equate with raising the sales tax from 11 percent to 13 percent.

Where it is possible to increase taxes in New Brunswick, such a move might well prove self defeating if the higher tax burden impedes economic development efforts.

A further revenue consideration is provincial exposure to cutbacks in federal grants. Recent experience indicates that grant programs from Ottawa are more likely to be reduced than enriched. With about 40 percent of total revenue coming from the Government of Canada, New Brunswick must incorporate this consideration in its own planning.

The limited ability of New Brunswick to raise more revenue from its own tax base, exposure to cutbacks in federal grant programs, higher interest costs and a vulnerable economy mean that governments in this province must be concerned with the level of the public debt.

The implications of the Province's fiscal situation for spending on health services are serious. There is clearly a very low probability that provincial residents will have the capacity or the willingness to provide additional funds through higher taxes. Increases in the public debt burden is no solution, since this would simply transfer the problem to our children.

Regardless of the resources available, there is a great deal of pressure to match the level of services and pay scales established to a large extent in more prosperous jurisdictions.

Will the population's health be placed at risk if there is not the fiscal capacity to provide for a continuation of increases in spending on health services beyond the rate of growth of the provincial economy or the growth in government revenues from current sources at current rates? The following chapter, dealing with the issue of what determines the health of a population begins to describe that maintenance and potential enhancement of health status can be achieved, within the bounds of fiscal restraint, if there is a willingness to consider and adopt new approaches.

Instead of looking at increasing revenues to support greater expenditures our concentration was on the identification of methods to achieve better value from the current level of funding of the health services system.

A few suggestions were made to us on possible additional sources of funding within the limitations of the Canada Health Act consistent with a publicly funded system. In addition to the proposed federal government funding measures in Chapter 19, the following suggestions were noted:

- With respect to recovery of hospital and medicare expenses from negligent third parties in automobile accident cases, Ontario has negotiated an arrangement with automobile insurers whereby they pay the province a lump sum each year, on a bodily injury ratio formula based on the total premium dollars collected in the province, to reimburse the province for those expenses. The province waives its rights of subrogation. One estimate is that, if such an arrangement had been in force in New Brunswick in 1987, about $1.1 million of additional benefits would be realized from payments on behalf of negligent third parties in automobile accident cases. We understand negotiations are now under way to make a similar arrangement in New Brunswick and these should be continued.

- A concentrated campaign to increase revenue generation by hospitals for concessions, rental of space to doctors and pharmacists, etc., which could result in the raising of additional funds.

- It appears that the province may not be recovering its full costs where physicians are found liable for negligence, because of the refusal by some insurers to reimburse their insureds for these costs. If this is so, attempts should be made to obtain full recovery.

- The recent Ontario budget has replaced the former OHIP premiums (which covered about 18 percent of Ontario health care spending in 1985-86) with an employer health levy based on gross wages ranging from .98 percent to 1.95 percent.

- Charging an extra fee, identified as being for health care, on sales of lottery tickets, tickets to professional sports events, proceeds from bingo games, etc.

- Develop an equitable formula whereby individuals who have resources available would assume a larger share of the responsibility for caring for themselves. The possibilities of doing this are limited by the conditions of the Canada Health Act.

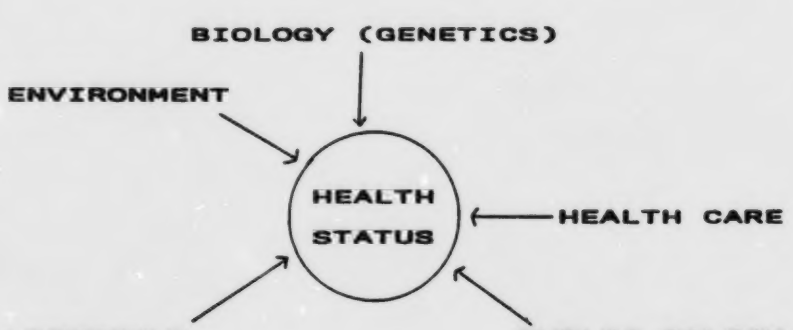
CHAPTER 5

Limitations of the Health Care Delivery System

It is important to consider, in any global review of health services, the impact that such services have on the objectives they were intended to achieve. Few would dispute that the primary reason for expenditures on health services is to improve the health of the receiving population. Yet there is mounting evidence that the current emphasis on the medical model of diagnosis and treatment is not producing, and will not produce on its own, the level of population health status that is possible. An additional objective that has gained wide support is to maintain the maximum independence of those disabled by ill health, but the current approach is to overemphasize the provision of care in institutional environments.

Thirteen variables, many of which are influenced by public policy, have an effect on individual and hence population health outcomes. Health care is only one, the others are genetic endowment, accidents, catastrophic environmental events, environmental factors, income, housing, education, family structure, life styles, social structure, public health services, and the health status of those one lives or associates with. Following is a graphical representation of some of these factors.

THE DETERMINANTS OF HEALTH STATUS



WE WILL DISCUSS ONLY HEALTH CARE AND PUBLIC POLICY WHICH PERTAINS TO HEALTH CARE.

In a public expenditure allocation context these considerations must be continuously acknowledged. If the spending on the health care system gets out of proportion, the financial ability to intervene regarding the other determinants of health is reduced. The consequences could well be declining health status as the ability to fund other health creating or supporting public programs is reduced.

In the New Brunswick case it may well be necessary to choose between apparently legitimate demands for more resources in the competing public policy areas of health care, job creation, education and housing, etc., while underfunding each of them. The choices, however, from a population health perspective, should be based upon the expected health outcomes.

We were impressed with the observations of J. Fraser Mustard in this regard and wish to refer the reader to the document in Appendix "B" titled "The Health of Populations and the Program in Population Health" by the Canadian Institute of Advanced Research.

This is but one of an expanding number of reports that is broadening the perspectives of those who are making the recommendations and decisions related to future health initiatives. We acknowledge the logic of this broadened framework for health.

CHAPTER 6

Indications of Willingness to Adapt to Change

The four major provider groups involved in the delivery of the programs which we reviewed can either facilitate or impede change in health services delivery. We were encouraged by their willingness to participate in all the opportunities offered to them during the course of our review. These shared experiences demonstrate that all agree on the need to ensure that the best value is being obtained for resources currently allocated to health services in New Brunswick.

We were also encouraged by the willingness to co-operate expressed by all other groups and individuals who filed briefs with us. The co-operation of all those involved in the health care system is essential. The four major groups must take the lead but they cannot achieve the necessary improvements alone.

We conclude that there is a willingness on the part of all groups to be actively involved in efforts to improve the cost- effectiveness of health services.

We believe that this spirit of cooperation can also extend to government involvement in joint planning and negotiations with these groups. The success of such endeavours, however, will depend on the availability of objective information resulting from expanded health service analytical activity, social marketing efforts and, most importantly on organizational changes that will engage providers in cooperative planning and management activities.

CHAPTER 7

The Role of the Physician

It is not possible to understand the health services programs in Canada without a sound knowledge of the physician and his pivotal role. Every patient who is admitted to a hospital is admitted on the order of a physician. Every drug which is dispensed for human consumption is prescribed by a physician or dentist, the vast majority by physicians. Ninety-nine percent of the services covered by medicare in New Brunswick are provided by physicians. Decisions made by physicians make the entire system work.

Historically, doctors have been the persons in our society who have treated those who were ill. In most of the Western World, a doctor funded his own education, functioned as an independent businessman and was paid for the services he rendered by the patient on a "fee-for-service" basis. He sometimes charged exorbitant fees of the wealthy and sometimes provided service without charge to those who could not pay, a Robin Hood principle which was supported in the common law. A crude, but early beginning for the principle of universal accessibility. Unfortunately, not all who needed the care of a physician obtained it. This was for many reasons, but sometimes it was because patients did not seek care because they knew they could not pay.

During the years between the first and second World Wars a strong movement developed based upon the belief that medical care should be available to all. The basis of these programs was that medical care should be paid for in advance so that all participants in the program would feel that they had a right to seek the medical care that they needed. Some of these programs were organized by industries or unions, some by non-profit insurance programs, some by physicians. A parallel movement developed to prepay for hospital care. The ultimate development of this movement was reached in the 1950's and 1960's with government-financed universal prepaid medical and hospital insurance.

Since the beginning of the medicare and hospitalization programs in Canada, a number of gradual changes has been occurring. Physicians are paid according to a fee schedule which is negotiated with government on an annual basis. Initially, physicians' incomes were as good or better than they had been prior to medicare and they did not negotiate strenuously. Increases in the fee schedule did not match infla-

tion, but physicians maintained their effective incomes by increasing the number of services performed.

This was not difficult for physicians to do because they were dealing with patients who were becoming accustomed to the fact they did not have to pay to see a doctor and therefore sought his services more frequently and for less serious illnesses.

Patients were also becoming more knowledgeable and sophisticated in dealing with their health problems and began to demand a participation in decisions about investigation and treatment of their illnesses. They were aware of the rapid development in medical knowledge and the explosion of technology in all fields: investigation, surgery, pharmacology, and rehabilitation. They demanded the newest and the best. Usually, but not always, it was appropriate.

Coupled with this has been the development of a litigious society. More and more frequently, doctors are being accused of being negligent and sued for damages. In these legal actions, the accusation is far more commonly sins of omission rather than sins of commission. Though most physicians do not order investigations or treatments just for the purpose of legal protection, most have a subconscious concern lest they missed something which should have been done.

These many factors are all pressuring the health care services in the same direction. They are all increasing the utilization of health care services as outlined in Chapter 3 of this report. In the midst of this sits the individual physician under many stressful pressures doing what has been his traditional role and for which he has spent 8 to 15 years of his life in preparation. His day is a succession of many decisions made, as he sees it, in the interest of his patient's health. It is these decisions which make the system run. It is these decisions which ultimately create the cost to the public purse.

To compound the picture is the fact that the number of physicians in Canada and most of the Western World is increasing faster than the increase in total population. When medicare programs were first introduced, the physician to population ratio ranged from 1:800 in British Columbia to 1:1900 in Newfoundland. At the end of 1987, New Brunswick had one doctor for every 830 people, the comparable national average figure was one to 542.

Health services planners looking at the overall picture see the physician as the player whose decisions tie the whole system together. They see him as the gate keeper. They see the control of his decisions as the key to the control of the entire system. They see it as the physician's responsibility to society to bring the costs of health services under control.

The physician's basic response is that he is the patient's advocate. He is aware of his responsibility for his decisions, but sees his responsibility as being primarily to the patient. He considers stewardship of the publicly funded facilities which are at his disposal but sees that as a secondary responsibility. Consequently, the tendency is to err on the side of excess use of services in response to patient expectations. This causes a financial strain on the system.

At a collective level, the physicians' professional associations in this and other provinces fully understand the need for physician participation in the control of the costs of health services and offer cooperation to government in achieving this end. As will be seen in subsequent chapters, this is the critical factor.

CHAPTER 8

The Need to Shift from In-Patient to Community-Based Care

The Historical Perspective

After more than three decades of experience with a national hospital insurance program it is informative to reflect on the foresight of those involved in the design and implementation of the program. System designers of today say much the same as those of this earlier generation, but it remains to be seen if there is any greater inclination to accept their advice.

What has changed, however, is that while the earlier generation architects included the national medical and hospital associations, these organizations today are less likely to embrace the concepts that their predecessors encouraged in the formative years of national health insurance.

Throughout the debate of the late 1940's and early 1950's several features of a services system were put forward by the Canadian Medical Association and the Canadian Hospital Association. In retrospect they were very prophetic about the consequences of a failure to adopt them, specifically the unnecessary dependence on the acute care hospital system. A 1955 CMA statement said

> "To assure economy and efficiency in the provision of services:
>
> Hospitals, health departments and all other health agencies should coordinate their activities so as to provide their services more effectively and economically.
>
> Hospitals should be located and their facilities and size determined on a planned regionalized basis.
>
> An adequate system of institutional facilities and services requires the balanced development of diagnostic facilities, active treatment general hospitals, rehabilitation centres, chronic care facilities (including mental and tuberculosis hospitals) and home care programs.
>
> Lay and professional organizations and government health agencies should participate in community, provincial and federal health planning activities".

The CHA, similarly, but in 1953, in a brief to the Minister of Health, made a number of important points:

> "The specialized services now provided by a modern general active treatment hospital are necessarily expensive, and therefore such hospitals should be used for those acutely ill patients who may benefit from such services.
>
> Unfortunately, this preoccupation with general hospital facilities has resulted in an almost complete ignoring of the needs for alternative types of care, such as convalescent hospitals, homes for the aged, or visiting-nurse services. Consequently, many general hospital facilities are being called upon to provide care which could adequately be given in much less expensive ways and in less expensive types of institutions".

Taylor[1] has concluded quite rightly that the policy decision to introduce hospital care as the first insured benefit made the program unnecessarily expensive.

The policy makers of today must have the courage to reorient the system to conform more closely with the cost-effective options open to them. A greater shift from inpatient to community based care is one of them.

The Current Situation

There is ample evidence that many people currently treated and cared for in hospitals and nursing homes could, and often would prefer to, receive needed services in their homes. The institutional approach does not necessarily ensure better quality of care (in fact it may put patients at risk of acquiring a secondary illness due to exposure to others) and it is frequently more costly.

Two measures portray the extent of the problem. New Brunswick's residents on average use 1.8 acute care hospital bed days each year, compared with 1.2 for all Canadians (50 percent more) and 0.8 in the United States (more than double). Measures of our health status do not suggest that we are any sicker than other Canadians, or Americans. Also, in Canada we institutionalize more of our elderly than any country in the world. Almost ten percent of Canada's population over 65 are in long-term care hospital units or nursing homes, compared with only about six percent in the United States and Australia and five percent in Britain.

The need to emphasize community-based care is well illustrated by studies on the effect of aging on health care. Aging itself effects health care costs by only 1 percent. One study[2] concludes that the following factors have a much greater effect on the risk of institutionalization of the elderly:

- Whether the person is living with a spouse or living alone.
- Whether the person is living in a senior citizens' housing unit.
- Whether the person has been admitted to hospital recently.
- Degree of disability in basic activities of daily living.
- Self-rated health attitudes.
- Problems remembering names of friends or relatives.
- Steady or unsteady state of mind.

Institutionalization is a result of not addressing these factors in community-based services.

New Brunswick is taking steps on the community side to deal with this situation through the introduction of the Extra-Mural Hospital Program and the pilot projects for the "single entry point" delivery model for seniors on the Acadian Peninsula and in Fredericton. Savings from these initiatives, however, will only be possible if the institutional sector is downsized to reflect the decreasing need to admit patients or to keep them for unnecessarily long stays.

[1] M. G. Taylor - "Health Insurance and Canadian Public Policy, The Seven Decisions that Created the Canadian Health Insurance System", McGill - Queen's University Press Montreal, 1979, pp. 189-192

[2] Evelyn Shapiro and Robert Tate- "Who is Really at Risk of Institutionalization? The Gerontologist" Volume 28, No. 2, 1988, pp. 237-245.

CHAPTER 9

Lessons Learned

Introduction

This chapter summarizes the key issues and concerns that are addressed in the balance of the report. Among the questions relevant to cost-effectiveness in health services we have considered:

- What actions will produce a healthy population?
- Is it necessary, in health outcome terms, to continue to increase the amount of service provided to residents of the province?
- Are there indications of inappropriate service use?
- Should the health services system receive additional funds?
- Are funds currently being allocated to achieve maximum cost-effectiveness?
- Is radical change necessary to maintain quality while containing costs?
- Are there better methodologies to produce information and better processes for improved decision-making?

Population Health

The primary reason for expenditures on health services is to improve population health, yet the current emphasis on diagnostic and treatment services will not produce, alone, the level of population health status that is possible. Other actions addressing accidents, the environment, income, housing, education and lifestyles must also receive more attention if further gains are to be made in the health status of the residents of the province.

Utilization of Services

A multitude of factors lead to an ever increasing use of and an unnecessarily costly health care system, including:

- The open-endedness of the Medicare and Prescription Drug Programs, which requires the province to pay for whatever amount of service is used.
- The number of physicians billing Medicare is increasing at a faster rate of growth than the population and new physicians have an unlimited opportunity to enter the system and supply services.
- The population expects unrestricted access to health care, including the latest medical technology, even though its use is not always appropriate.
- Physicians tend to err on the side of excess service provision in response to patient expectations.
- As there is no direct charge for most services the population seeks services more frequently for less serious illnesses.
- Physicians are uneasy about an increasing number of patients' legal actions for negligence and, consequently, they may do more than necessary to diagnose and treat illness.
- Increased medicare use per person in all age groups amounting to an added annual cost of $21.5 million from 1982 to 1987.
- There are no provincial hospital service guidelines or protocols for admission, length of stay and discharge, hence such decisions are generally made by individual physicians.
- Provincial residents are high users of inpatient hospital facilities; 50 percent more than the national average.
- New Brunswick exceeds the national average of hospital beds per thousand population.

Health Services System Funding

Almost twenty-five percent of the government's operating budget is spent on health services. In a national context provincial taxes are among the highest. New Brunswickers do not have the capacity nor, we suspect, the willingness to provide additional funds for health care. If spending on the health care system gets out of proportion, the financial ability to intervene regarding the other determinants of health is reduced. Buying more health care is not the best way to assure the highest levels of health.

Success in keeping health care spending under control in the foreseeable future will depend primarily on being successful in: containing the physician supply; reducing our excessive use of hospital beds; reducing prescription drug prices and utilization; curtailing our ever-increasing individual use of physicians' services; and avoiding inappropriate use of costly high technology services.

System Organization and Functioning

Decisions made by physicians make the entire system work. They decide who to admit to hospitals, who to refer for diagnostic procedures and who will receive prescription drugs.

The operational responsibility for hospitals is in the hands of autonomous boards for each facility. Facilities compete with each other, rather than cooperating to efficiently and cost- effectively deliver services, therefore there are instances of service duplication.

There is an increasing emphasis being placed on alternatives to inpatient service delivery. There is also ample evidence that many people who receive inpatient services could receive needed services in their homes and would prefer to do so. New Brunswick is taking steps to develop such services through the introduction of the Extra-Mural Hospital and the development of a single point of entry delivery model for community-based services for seniors. Savings from these activities, however, will only be possible if the institutional sector is downsized to reflect the decreasing need to admit patients or to keep them for unnecessarily long stays.

Maintenance and potential enhancement of health status can be achieved, while maintaining the proportion of the budget spent on health, if there is a willingness to consider and adopt new approaches to achieve better value from the current level of funding of the health services system.

We believe that the organizations representing the four major provider groups (hospitals, nurses, pharmacists and physicians), as well as other provider groups, are willing to be actively involved in efforts to improve the cost-effectiveness of health services.

Information and Decision-Making

Effective dialogue and decision-making throughout the health services system, from the point of delivery to the Government's Executive Council, is limited by the lack of readily available information on cost-effectiveness, changes in utilization and the health status impacts of health services. As a result the focus has been on global costs, adding of new services and staff and on building additional in-patient capacity.

Available data files could produce most of the necessary information, but regular analysis of their contents has not been carried out and consequently much is not readily retrievable. More analysis is necessary.

CHAPTER 10

A New Vision for Health and the Cost-Effectiveness of the Health Care System

Introduction

This chapter identifies the major system design and operational principles that we have followed in the formulation of our recommendations in subsequent chapters. We believe that these principles should also guide those who are involved in planning, funding and managing the health services system of the future.

Looking to the Future

We see a future for New Brunswick in which people live longer in good health, and where fewer of them are affected by illness and disability. We see the residents of this province enabled to realize their full health potential through a safe, non-violent environment; adequate income, housing, food and education; and with a valued role to play in family, work and the community. We see all having access to affordable and appropriate health care regardless of geography, income, language, age, gender or cultural background. Finally, we see a collaborative effort by the people, the service providers and the New Brunswick Government to achieve better health for all.

Design Principles

When considering changes and strategies to improve population health and the health care delivery system, a number of principles must be stated. We believe the following to be the most important of these principles.

Establish Health Goals

It is the responsibility of governments to set goals for achievement in both the economic and social policy areas. Such goals form a framework for planning, priorizing and evaluating programs. In addition, goals should be clarified by a series of more specific objectives and targets intended to measure progress toward the realization of goals. Setting goals and objectives is becoming a feature of effective health system planning in many jurisdictions. They encourage public discussion about the nature and purpose of the health care system.

Emphasize Cost-Effectiveness

There is no doubt that much more could be spent on the health care system, but it is equally true that better value, in terms of health status protection or improvement, could be obtained for funds currently allocated to health care. These opportunities must be fully exploited rather than resorting to the only other alternatives, reducing the range and quality of services or increasing taxes. New Brunswick should only increase or decrease its expenditures on health care on the basis of the expected effects on the health status of its population, not on the basis of how much other provinces spend.

Orient to Users

Programs and services should primarily reflect the interests and convenience of those who need them rather than those who provide them. The population must be enabled to make informed choices among treatment and care alternatives. Providers will play a large role in assisting users to make these choices.

Encourage Health Status Improvements

Individuals must be helped to make healthful choices in their lives through a better understanding of the causes of good and bad health. This is particularly so for those of lower socio-economic status who generally have greater health problems.

Emphasize Community-Based Services

One recurring theme in briefs, reviews and discussions on health care is the need for more emphasis on community care. A reduced emphasis on institutional care is desirable for therapeutic, economic, and perhaps even philosophical reasons. It is economically desirable because hospitals and nursing homes may care for people who could be cared for less expensively elsewhere. It is therapeutically desirable because hospitals can have an illness-causing effect. Philosophically hospitals can perpetuate the myth of the technological panacea.

Focus on Outcomes

Too much attention has been given to providing the resources for health services, such as personnel, buildings and equipment; with not enough going to outcomes and results. The provision of every program and each service episode must be based on a consideration of the health status changes they are intended to produce.

Operational Principles

In service planning and delivery there are a series of principles that, if followed, will raise the probability that the results will match the design principles previously stated.

Maintain Emphasis on Service Quality

Any service must be provided in such a manner as to minimize risks to users.

Ensure Program Costs are Predictable

All programs should be designed, operated and financially managed so as to minimize the possibility of exceeding budgets which have been determined prudently.

Enable Consumer and Provider Participation

Mechanisms are required to involve the public and providers more effectively in the planning and governance of health care services. Providers should participate formally in the management of resource utilization to ensure that service provision is consistent with available resources. In this way consumers and providers will become better acquainted with the limitations of health care interventions and the rationales behind control of health care costs.

Continuously Evaluate Results

The operation of all services should be continuously monitored to ensure proper utilization. More effort should be directed at evaluating the cost-effectiveness of existing programs and monitoring the operation of innovations and modifications to ensure they are achieving intended results.

Encourage Continuity of Care

The health care system has various acute and long-term care components. In the course of an illness an individual may need to be transferred between these components and the organizations involved must cooperate to ensure that transitions occur in a timely fashion. Above all, the focus should be to reduce unnecessary reliance on institutional care and to assist individuals to maintain independence.

Foster Innovation

There is no lack of ingenuity throughout the health care delivery system, but there is rigidity and there are limited resources for experimentation. Support, both financial and organizational, should be given to foster innovative service delivery and public information activities.

Our Vision

Above all, the health care system needs leadership with commitment to a vision. We believe, by following the principles laid out in this chapter and the recommendations made in the balance of this report, that such a vision can reasonably include a healthier population, a more cost-effective health care delivery system and a comprehensive range of services that is affordable for New Brunswickers.

CHAPTER 11

Improvements to the Organization and Administration of the Health Care System

Introduction

This chapter contains our recommendations for the global organization, budgeting and strategic planning and analysis of the health care system. These are the major areas the government should address to contain costs within the province's ability to pay and make the system more responsive to the needs of users.

A Health Maintenance Organization is a comprehensive, integrated, health services system. There are many models with sizes up to several million people. With 710,000 people, New Brunswick is simply a single H.M.O., therefore, planning should be made accordingly.

There are two big problems that we perceive in health services in New Brunswick.

1. Regional ambition and competition leading to inappropriate planning.

2. Political motivation influencing planning.

To correct these problems we make the two most significant recommendations of this report in, this Chapter, i.e., a greater emphasis on planning at the provincial level and the creation of the Premier's Council on Health Strategy with Area Health Planning Councils having a supporting role.

Reassessment of the System

There must be a reassessment of the New Brunswick health care system. The province now has more hospital beds than necessary and is trying to provide elevated secondary services in too many locations. Some hospitals are grossly under-utilized, while others are under excessive pressures. We have a limited critical mass of population and a limited ability to raise funds; the system must be organized with these factors in mind.

Elevated secondary services should be confined to five centres: Saint John, Moncton, Fredericton, Edmundston and Bathurst. Accordingly, **we recommend:**

That the number of regions be reduced and in particular, we consider it unnecessary to have Regions 5, 6 and 7 continue to exist as three regions; they should be combined into one, with the possibility that part or all of Region 7 could be combined with Region 1.

Since this rearrangement may require some patients to travel longer distances than at present, we recommend:

That the province's ambulance and transportation requirements be reassessed to ensure that consolidation of services will not create hardship for those living at some distance from the named centres.

The use of electronic transmission of images and data for diagnostic and treatment purposes could be used as an alternative to patient travel. We elaborate on this in Chapter 17.

The reassessment of the system must be accompanied by a change in the Hospital Services Master Plan to accommodate a better rationalization of services. We were advised that the current Hospital Services Master Plan to a great extent reflects the services each hospital was providing at the time it was prepared. If so it must be changed. **We recommend:**

That the Hospital Services Master Plan should reflect the services which each hospital should provide, not what it does provide, and that the master plan, once reassessed and adopted, must be followed.

If the plan is not followed, services may continue to be provided in areas where it is not rational to provide them. We were advised that the current Hospital Services Master Plan has not always been followed.

As part of the reassessment, **we recommend:**

That the range of services now paid for be reviewed as there appear to be some for which it is questionable whether they should be provided at government expense, for example certain employment and recreational related screening services.

Services in the northern part of the province should improve as a result of full implementation of the Northern Service Development Program. **We recommend:**

That the Northern Services Development Program be continued.

That, as northern services improve, service capacities in the major centres, Saint John, Moncton and Fredericton be reassessed in relation to the number of services they are now providing to residents of the north for non-tertiary care services.

It will also be necessary to define the province's requirements for physicians and to take steps to ensure that their numbers and distribution reflects the needs of the population. This is dealt with in Chapter 13 of this report.

Organization and Planning - Premier's Council on Health Strategy and Area Health Planning Councils

The reassessment and continued strategic planning of the health care system necessary to contain costs must include all groups involved in it: the government (broadly and at the highest level), the providers of health care, communities and individuals. The government participation must include departments other than the Department of Health and Community Services, whose activities affect the many determinants of health discussed in Chapter 5, such as Education, Environment and Labour, etc. The reassessment must sensitize the government, providers, communities and individuals to all health issues; prevention, lifestyles and health education as well as traditional treatment programs.

Moreover, strategic planning of the health care system must be separated from purely political considerations. Many people and groups told us that there has been too much politics in the system and that it has suffered as a consequence. Decisions should be based only on rational strategic analysis. The costs and the potential for low quality are simply too high to do otherwise. The large number of hospitals providing, or trying to provide, secondary care seems to be one of the results of making decisions based on political considerations. Much of the political pressure comes from communities desiring additional services where they do not fit into a rational provincial health system. It is often easier to give in to community pressures than to explain why they cannot be made available. Such pressures must be resisted if escalating health care costs are to be kept within the province's ability to pay.

We have reviewed the health organizations in place in other provinces to determine the best means of involving all groups in health care planning in a non-political setting. We conclude that the Ontario model of a Premiers Council on Health Strategy is the preferred model for New Brunswick. Therefore, **we recommend:**

> **That a Premier's Council on Health Strategy be established, to be chaired by the Premier. Other members should include four ministers (one whom should be the Minister of Health and Community Services who should be the vice-chairman), representatives of five provider groups (physicians, nurses, hospital administrators, pharmacists and community health service groups) and five consumer representatives of whom one should be a representative of labour and one a representative of hospital trustees.**

The chairmanship of the Premier and the presence of four ministers is essential to reflect the high level of commitment, from government as a whole, to examine policy options for the future directions of health and health care. Health care warrants this level of attention as it is the largest item of public expenditure, almost one-quarter of the province's revenue and over one and one-half times the next largest item, education. **We recommend:**

That in order to fulfil its mandate, the New Brunswick Premier's Council will be expected to:

- **Select specific goals to achieve the improved health of New Brunswick's residents and establish specific targets and priorities which can be measured, evaluated and implemented;**

- **Plan the future development of the health care system of New Brunswick so that health services and a continuum of health care are provided in a rational, cost-effective manner;**

- **Initiate innovative approaches to health care which are sensitive to the diverse needs of the province and which foster personal responsibility for health, the appropriate use of resources by individuals and health professions, and which enhance linkages between health and related human services;**

- **Initiate specific public policy actions which are required to improve the health of New Brunswick's residents including health promotion and those which are beyond the traditional jurisdiction of the formal health care system.**

- **Make periodic reports to the government of New Brunswick and make them public.**

The Council should have available, or develop, a reliable information system as well as adequate staff resources to do its job. The 1978 Task Force on New Brunswick Health Care recommended such an information system but although data is available, the ability to use it has not been developed. The Premier's Council should do much of its work through committees or task forces on policy matters (like updating of the Hospital Services Master Plan, development of bed guidelines, establishing and maintaining optimum physician manpower, etc.) as distinguished from matters of an operational nature, involving groups like the Medicare Professional Review Committee which could better function independently from the Council. It must also be prepared to engage consultants to conduct in depth studies of specific subjects to provide data and recommendations on which to base its decisions. Personnel of the relevant government departments should be involved in the work of the Council's committees and task forces to ensure that those who take implementation action are familiar with the expected impact of their recommendations.

A province-wide council cannot fulfil its mission without some means of receiving support and information from local communities, nor can all local issues receive adequate consideration at a central level. Therefore, **we recommend:**

That Area Health Planning Councils be established throughout the province, comprising those areas which logically form sub-systems within the five regions as proposed. Their function would be to coordinate and rationalize health care services in their area, considering all available

resources and needs, and to provide a comprehensive continuum of care within the guidelines and service limitations established by the Premier's Council and the Department of Health and Community Services.

Area Health Planning Councils should make regular reports to the Premier's Council on matters affecting their area. These Councils should consist of ten to fifteen members with numbers and personnel varying with the needs of the area. Among those whose interests should be represented on each Council are hospitals (administrators and trustees), the local unit of the Extra-Mural Hospital, nursing homes, ambulance services, physicians, nurses, public health personnel, community services personnel and consumers. Consideration should be given to the appointment of Area Planning Co-ordinators to assist the Councils.

In spite of the willingness to cooperate referred to in Chapter 6, our meetings with provider groups have shown that the important groups involved in health care in New Brunswick are not currently discussing their interrelated activities to the extent they should. In these groups we include hospitals with physicians, hospitals with nurses, physicians with nurses and nurses with registered nursing assistants. They often appear to be functioning at cross purposes. Therefore, **we recommend:**

That the Premier's Council establish a task force, as a matter of priority, to take the lead in developing structures for all provider groups to work more closely together.

Reduction of Acute Care Beds

Implementing some of the major recommendations in this and subsequent chapters may increase health care costs in the short run but, in the long run, will reduce costs from what they would otherwise be by reducing reliance on expensive hospital facilities. However, it is essential to realize that implementation of major recommendations, such as increasing the use of community and home based care and strict hospital utilization management will not produce savings unless there is an associated cut-back of acute care hospital beds. Trustees and the government must be prepared to close hospital beds and to refrain from building new hospitals where it can be done without affecting quality of care. We believe that implementation of our recommendations will reduce the requirement for hospital beds and that this reduction can be obtained without jeopardizing the quality of the health care provided to New Brunswickers. Therefore, **we recommend:**

That hospital trustees and the government make a commitment to close hospital beds and refrain from adding beds (when it can be done without affecting quality of care) in order to achieve the cost-savings which can result from implementation of the recommendations of this report.

Program Evaluation

Effective control of the costs of a health care program requires continuing evaluation of the components of the system to ensure that they are producing the desired results and are doing so in a cost effective manner. Therefore, **we recommend:**

That the Premier's Council on Health Strategy, the Area Health Planning Councils and the Department of Health and Community Services conduct ongoing evaluation of all existing programs within their spheres of responsibility and an evaluation of all proposed new programs and acquisitions of new equipment, including their estimated annual cost to the system.

In order to make a rational evaluation of existing and new programs a number of criteria need to be considered.

- Is this program relevant, is it needed?
- Is it being delivered efficiently or could it be provided for less money?
- Is it effective, does it do what it was intended to do?
- Does it have the desired long-term impact and does it solve the right problems?

The most common techniques in program evaluation include economic evaluation, case studies, monitoring and surveys. Evaluation strategy and techniques are covered in Chapter 12 of this report and in greater detail in a report prepared for us by Fulton and Sutherland. This latter report should be used as a guide by those responsible for program evaluation.

Budgeting

Hospitals

Steps taken in the past to control hospital expenditures have brought their budgets more-or-less under control. In the last five fiscal years hospital costs increased by an average of 6.3 percent per annum, which compares favourably with the general rate of inflation. This does not mean that hospital budgeting cannot be improved. **We recommend:**

That the policy of not funding hospital deficits be continued.

That, when opportunities arise in-year to more quickly implement the Northern Services Development Plan and the Hospital Services Master Plan, there be formal budget adjustments for the affected hospitals.

The current incentives for hospitals to keep within their budgets, however, are not having the desired effect because the incentives are insufficient. Therefore, **we recommend:**

That hospitals be permitted to retain a larger portion of their surplus, at least 50 percent, to make it financially worthwhile for them to operate below budget.

We believe that implementation of the recommendations in this report will enable the government to control hospital expenditures more effectively than in the past.

Two major problems were brought to our attention regarding hospital budgeting - budgets are not made available before the beginning of the year and the Operational Audit/Base Budget Reviews are not carried out frequently enough.

As to the first, it would be a major improvement to the budgeting process if the government informed hospitals of their total budget allotment before the beginning of the fiscal year. It is obvious that the already complex job of managing a business like a hospital is made much more difficult if the budget is not received until several months after the beginning of the year while management is, at the same time, instructed to keep strictly within that budget.

We realize the difficulties due to the requirement of legislative approval but **we recommend:**

> **That some means be sought to enable hospital budgets to be available at the beginning of the hospitals' fiscal year.**

As to the Operational Audit/Base Budget Review process, it is not in the design of functioning satisfactorily because reviews are not done frequently enough. They are not done every three years as contemplated in the design of the approved system. In the meantime, a hospital must live within annual budgets escalated only for inflation rate. This means that the budgeting process is not kept in touch with the changing patterns of a hospital's requirements. We understand that this is due to a lack of staff but it is not good economics to save on staff at the expense of an effective budgeting system. Therefore, **we recommend:**

> **That Operational Audit/Base Budget Reviews of each hospital be done on a three year cycle.**

We were advised that funding for tertiary services based on past practice (as is now the case) rather than current requirements, creates difficulties where the costs exceed the permitted inflationary increase. As a result those services must be reduced or other services must be curtailed to provide the funds. It was proposed that tertiary services be funded as separate programs so that changes in demand for them could be properly evaluated. We agree in principle with this suggestion as it would enable the province's tertiary services to be kept up to date and avoid other expenses which might be necessary if they are not. We recognize there may be technical difficulties in doing this but **we recommend:**

> **That, when it becomes feasible, tertiary services should be funded as separate programs.**

Medicare

The key to controlling budgetary increases is to control the number of physicians. The material we have studied and the experts we have consulted all point to a direct relationship between increases in the number of physicians and increases in costs. Physicians are the central decision makers in the system.

Medicare expenditures have increased at an annual average rate of 9.7 percent over the last five years and are a cause for concern. Measures to address this are covered in Chapters 13 and 18 of this report.

Prescription Drug Program

Budgeting of the Prescription Drug Program is virtually impossible because it is now an open-ended program. Neither prescribers, dispensers or users can be held directly responsible for expenditures exceeding the budget. Expenditures on all aspects of the Prescription Drug Program have increased at an average annual rate of 12.6 percent over the last five years and they also must be brought under control. An aggressive approach, involving major cost saving measures and utilization control, is essential. Our recommendations on this subject are covered in Chapter 15. If measures of this nature are not taken, there are no alternatives except to reduce the coverage, such as abolishing the entitlement to those over the age of 65 who are not on Income Assistance or to increase the co-pay. We do not consider either of these alternatives to be desirable.

Future Budgeting

Once the objectives are met as to physician manpower supply and the costs of the Prescription Drug Program are brought under control, it should be possible to determine with reasonable accuracy the budgetary requirements at or before the beginning of each year. **We recommend:**

> **That, once physician manpower supply is met and the Prescription Drug Program is brought under control, the government attempt to keep its annual increases in health expenditures at no more than the rate of inflation. For this purpose, an appropriate inflation rate should be developed to reflect the growth in the cost of inputs to health care services in the province.**
>
> **That after a cap on spending has been established, every attractive new program or service will, if it costs money, be eligible for implementation only if the place in the system where the necessary money can be found has been identified.**

The purpose of budgetary control is not just to stop the escalation of health costs but also to make funds available for other health-creating measures such as improved housing, improved lifestyles, improved transportation facilities, work-place safety measures, health education and other measures not traditionally considered to be related to health services.

Innovation Fund

Hospital and other health care institutions should be encouraged to research means of improving the cost-effectiveness of services they provide. Cost of this research is not an item that should be included in the institutions' regular budget and special

provision has to be made to make funds available for that purpose. Therefore, we **recommend:**

> **That a specified part of the health care budget, perhaps 1/4 of 1 percent or $2,225,000, should be set aside in an Innovation Fund administered by the Department of Health and Community Services to assist hospitals and other sources of care who wish to improve the effectiveness of their program or facility.**

Hospitals and others would be invited to use this money to improve their ability to decide how best to distribute money to various programs or departments. Policy makers, providers and community groups would be encouraged to assess both existing and new health care delivery policies and activities and the implementation of recommendations in this report including: utilization management, Community Health Centers and development of practice guidelines.

CHAPTER 12

Health Services Research to Support Effective Decision-Making

Introduction

Information on the cost, cost-effectiveness, changes in utilization and the health status impacts of health services is not systematically produced in New Brunswick, nor is it often used in management, program planning and policy setting activities. A comprehensive range of cost and utilization data is collected, but regular reports are not prepared and special requests require laborious and costly mainframe computer generation. Little useful information on the health status of provincial residents or on the patient outcomes attributable to health services is available, nor is there a method for linking such information with cost and utilization information. Without such information it is difficult to make good policy and resource allocation decisions, and it is hard to tell if too much or too little of something is being done. The government and the people of New Brunswick must have evidence that any resource use has a positive impact on health.

Health services research is a relatively new discipline. In entering this field it is necessary to recognize that:

- Data has been collected on the volume and costs of procedures, but it is not well connected to outcome measurements of results.
- Many treatments and procedures have been introduced without evaluation of either costs or outcomes, or the relationship between them.
- Many procedures currently in use have never been evaluated.
- Even when good evaluation evidence is presented it is difficult to change providers' behaviour.

This chapter deals with the methods, organization and resources necessary to analytical activity for effective decision-making. The three main subject areas for health services research are discussed here.

Value-for-Money

Traditionally physicians have been the ones who decide, often individually, which patients come first, which procedures to perform, which drugs to prescribe and

which programs to fund. However, policy setting decisions, many especially between categories of actions or categories of patients are very much in the realm of social policy, where the opinions of many groups plus the analysis of data should have an impact on policy choices. Such policy choices in the health field are extremely important because the ability of the government to control total health service spending increases if the public is being well served and is reasonably content with what is being delivered. These results are more likely to occur if the money available is well spent.

The search for better value-for-money or better resource allocation in health services deals with a variety of important questions:

- What will happen if a type of service is not performed?
- Who will be harmed or placed at risk?
- How serious will the harm or risk be?
- How many will be harmed or placed at risk?
- How much money will be saved?
- How much more effective is this than alternatives aimed at the same objective?
- How much more or less costly is this than the alternatives?
- How completely is the problem already being addressed?

If decisions are not based on cost-effectiveness, then less acceptable criteria for resource allocation will dominate, such as: political expediency; advice from vested interests; media pressure; following what others do; public opinion polls; advice from the leaders of social, professional or bureaucratic organizations; the squeaky wheel; or the charismatic leader. Decision making in the health policy field is a balancing of the technical (ie. value-for-money) information and more subjective factors. Such policy choices should represent democracy at work. We have no doubt, however, that good information and good logic will, over-time, contribute immensely to the development of more cost-effective health policies and programs.

Health Status

Several tools will help to identify how to obtain the maximum health status improvement that is possible with the resources available. To measure the impact on health requires the selection of indicators of health and measuring changes in these indicators. A broad definition of health encompassing physical health (length of life, mortality, disability and pathology), mental health (depression, anxiety, optimism and a strong self image), and social well being (good social framework and someone to love and be loved by) is important.

Quality of Care

Outcome and the degree of exposure to risk are usually the primary concerns of a patient and they are the best measures of the quality of care provided to a population. Professional staff and administration may be of the highest quality, staff-to-patient ratios may be excellent and facilities may be the best, but collective patient care can only be measured in terms of how well patients did in comparison to how

well they might have done, or how much hazard they were exposed to in comparison to how little they might have been exposed to.

In the evaluation of the quality of health services there is too much emphasis on the measurement of inputs and too little on processes outputs and impact.

Analytical and Research Methods

The emphasis in this Chapter will be on evaluating value-for- money. While measures of health status and quality of care are important, and must be explored, our review did not include a comprehensive treatment of these subjects.

We were impressed by the potential of analyses like those conducted for us by Michael Gormley and John Horne. We urge the use of these methodologies in the ongoing generation of information for program planners, managers and policy makers. Evaluation will be most useful for strategic management or policy making if it answers questions, if it offers additional insights, if it makes predictions, if it enables more rational decision making, and if it includes a sensitivity analysis.

Appropriate evaluation methods will usually be selected from a range of economic analysis techniques. There are three main types of economic analysis in program evaluation: cost-minimization, cost-benefit and cost-effectiveness.

Cost-Minimization Analysis

This is a technique for comparing the costs of alternative courses of action that have the same objectives and are known to be equally effective in achieving these objectives. This type of analysis is useful when more than one course of action is available, such as between an in-patient or ambulatory treatment alternative.

Cost-Benefit Analysis

This technique is used when the resource inputs and results of a course of action can be identified in units of a comparable nature (usually dollars). Such analysis involve a series of mathematical calculations which provide a measure of the net benefit that will result from following a given program.

Cost-benefit is useful when the objectives are to assess the economic feasibility of a program or to identify the program with the largest net benefit from a group of feasible programs with or without the same objectives.

Cost-Effectiveness Analysis

This type of analysis uses a series of mathematical and analytical procedures which aids in identifying a course of action which best achieves given objectives. The methodology is useful for comparing the efficiency of alternative programs or interventions aimed at the same outcomes.

These techniques for economic evaluation are methods to systematically deal with answerable questions.

Organization and Resources

Other areas of the country have strong non-governmental health services research agencies that are producing material of application to their own jurisdictions, but also of use to the country generally. The major organizations of this type are:

The Centre for Health Economics and Policy Analysis, Department of Clinical Epidemiology and Biostatistics, McMaster University, Hamilton, Ontario

The Division of Health Services Research and Development, University of British Columbia, Vancouver, B.C.

Groupe de Recherche Interdisciplinaire en Sante Universite de Montreal Montreal, Quebec

We believe that a number of organizational improvements are necessary to develop the ability to perform and apply the results of health services research. In this regard, **we recommend:**

That the Planning and Evaluation Division of the Department of Health and Community Services improve its capacity to obtain, interpret for application in New Brunswick and disseminate the results of research conducted elsewhere.

That New Brunswick encourage development of and financially support a health services research agency for the Atlantic or Maritime Provinces.

That the Department of Health and Community Services create a supportive environment for research and evaluation.

That the operational responsibility for health services research be delegated to the Executive Director, Planning and Evaluation, who will be responsible for aggressively developing the function and the use of the results throughout the Department.

That a position be added to the Planning and Evaluation Division at the Director level for a person with well-developed methodological and quantitative research skills and that this position be supported by dedicated research assistants and ease of access to data.

That the research agenda be initially determined and periodically updated by the Department of Health and Community Services with input from the provider organizations.

That staff outside the Planning and Evaluation Division who hold relevant positions, or who have strong research skills, be involved in the health services research activity, eg, the Provincial Epidemiologist.

That the Department ensure sufficient research capacity to meet the data requests of provider organizations, the Premier's Council on Health Strategy, the Area Health Planning Councils, and consultants engaged by them to perform studies.

Above all there must be organizational willingness to give a research group considerable freedom to begin to examine the potential to produce useful information from existing data.

Readers are encouraged to refer to the technical reports prepared at our request by Fulton and Sutherland[1], John Horne[2] and Michael Gormley[3].

[1] Professors Jane Fulton, Ph.D. and Ralph Sutherland, M.D., "Methods for Containing or Reducing Utilization and Cost". University of Ottawa.1989

[2] John Horne, Ph.D..Factors Contributing to Cost and Utilization Growth in Health Care. University of Manitoba. 1989.

[3] Micheal Gormley. Preliminary Estimates of Utilization of Physician and Hospital Services- 1981/82 and 1986/87. Vancouver, 1989.

CHAPTER 13

Determination of Appropriate Physician Manpower Targets and Distribution

Introduction

As was discussed in Chapter 7, public access to almost all of the health services under our review is through physicians. The physician is truly the gatekeeper of the system.

Since the introduction of the provincial hospitalization and medical service insurance programs, the costs of these programs have increased at a rate exceeding inflation or the increase in the Gross Domestic Product. The number of physicians in relation to population has also been increasing and it seems logical to assume that there is a cause and effect relationship. It would therefore follow that the cost of these programs can be controlled by controlling the number of physicians.

This concept is very attractive because it avoids some very difficult questions. For example, is the increased utilization of services consumer driven or physician driven? As presented here, it is most certainly oversimplified, but it demonstrates the need to be aware of the concern about the number of physicians.

Ideal Number of Physicians

What is the ideal number of physicians? It is obvious that, at some point, increasing the number of physicians does not benefit the health of the population. The World Bank has studied this in a survey of 75 developed countries and it has concluded that this point is at a level of approximately one physician for every 665 people. Canada already has one doctor for every 542 people and the number is increasing. There is other supporting evidence to indicate that one physician for every 650 to 700 people will supply all of the legitimate needs, even in provinces where there are medical schools with large numbers of physicians not directly providing patient care.

On that basis, New Brunswick with one physician for every 830 people in 1987, higher than the ideal, is in a good position to commence to control the number. There are some areas of the province, especially in the northeast, where the supply of physicians is still significantly below normal. Data presented in Chapter 3 indicates a particular need to increase the accessibility to specialty physicians for residents of northern regions. It can, therefore, be concluded that the major southern centres have adequate numbers of physicians even though there may be deficiencies in certain specialties.

Reason for Control

Why should New Brunswick be concerned with physician manpower planning if the province still has areas of shortage? There are several reasons;

1. To contain costs because of the demonstrated direct relationship between increasing numbers of physicians and increasing costs in health care programs.

2. To allow financial planning for health services on both the short term and long term bases. If a program for increasing physician manpower can be established with predetermined maximums it would be possible for the departmental staff to calculate the expenditures which would be necessary for the remuneration of those physicians and also for the projected hospital, community health care, and prescription drug costs.

3. To direct recruitment. While there are still physician requirements in the province which have not been met there is no longer need for overall recruitment. The areas of need should be identified and provincial resources directed to recruitment in these areas. Recruitment to areas which are already adequately supplied should now be discouraged to avoid the possibility of having to affect existing manpower in the future.

4. To have realistic needs defined in the event of unforseen migration of physicians into this province. Five provinces, British Columbia, Saskatchewan, Manitoba, Ontario and Quebec have taken active measures to deal with the increasing utilization of physician services, including both the number of physicians and the number of services being provided by individual physicians. At the present time the pressures are relatively gentle, but there is some evidence that recruitment of physicians to practice in New Brunswick is becoming easier. Should the disincentives to locate in the other provinces become stronger, New Brunswick could very quickly become the first alternative. It should not be forgotten that 5 percent of the doctors of Ontario equals 100 percent of the doctors of New Brunswick.

Methods of Control

The following are possible methods of controlling physician numbers:

1. Most specialists require hospital privileges in order to effectively utilize their training. We understand that a physician resource plan has already been prepared by the Department of Health and Community Services as an accompaniment or derivative of the Hospital Services Master Plan. However, elsewhere in this report we make recommendations which would require a reassessment of the Hospital Services Master Plan and therefore the physician resource requirements. The specialty physician services for the province need to be examined in detail and planned on a provincial basis.

Family physicians (and a few specialties such as ophthalmology and dermatology) usually carry on part of their practice in the hospital environment. However, it is quite possible for them to act without hospital privileges and a few are already doing so. Therefore, as a method of controlling physician numbers, hospitals will be ineffective on their own.

2. Restrictions on Registrations. This would undoubtedly be the most straightforward method of controlling numbers of doctors in New Brunswick. However, it might be subject to legal challenge in the way in which control of billing numbers was challenged in British Columbia.

3. Global Capping of the Medicare Budget. This has been done in other provinces to varying degrees and in various ways. The basic principle is that the government budgets for physician services on the basis of prior utilization and, if the budget is exceeded because of unplanned increases in physician numbers or in services provided, the budget for the following year is reduced to compensate. This places the responsibility for control of recruitment on the physicians practising in the province. The shortcoming is that physicians who have nothing to do with recruitment may be penalized.

It is important to realize that methods of controlling the number of physicians in the province will influence the daily working conditions of the physicians who practice here. Since the beginning of Medicare, relations between the provincial government and the medical profession have been exceptionally good. The negotiations between the Department of Health and Community Services and the New Brunswick Medical Society regarding medicare payments have at times become testy, even acrimonious, but they do not compare with the crises which have been reached in almost every other province. This should be remembered in manpower planning and the profession should participate fully in the process. If undertaken immediately, while the province is yet in a phase of recruitment rather than oversupply, planning can be carried out to the mutual advantage of the Department of Health and Community Services, the physicians and the people of the province.

Recommendations

As a first step in bringing physician supply under control, **we recommend:**

That the Department of Health and Community Services should immediately establish a task force to prepare a detailed physician manpower plan for the Province of New Brunswick. This plan should include

1. **Identification of needs of under serviced areas**
2. **Specialist requirements for all hospitals**
3. **Maximum allowable numbers by specialty grouping in all areas**
4. **Method for continuing surveillance and amendment of planned numbers**
5. **Method of control**

That fifty percent of the membership of the task force be appointed by the New Brunswick Medical Society.

Although many of these recommendations are the same as those recommended for the existing Physician Resources Advisory Committee by the Task Force on New Brunswick Health Care, January 1978, they have not been fully implemented.

CHAPTER 14

Improvements to and Expansion of Non-Institutional Health Care Services

Introduction

Less demand for in-patient services will result from improvements in the range and capacity of non-institutional alternatives. Two types of alternatives are recommended as methods of improvement: new types of primary care arrangements; and improved coordination and the appropriate expansion of community-based treatment and care.

Primary Care Other Than in Physicians Offices

With the exception of Health Services Centres in eighteen small communities, the New Brunswick population has access to general practice physicians only through their office practices (single or group) or in the emergency departments of hospitals.

Other models, known as Health Service Organizations and Community Health Centres, exist elsewhere in Canada. These alternatives have recently been reviewed by a joint committee of the New Brunswick Medical Society and the Department of Health and Community Services. Their preliminary conclusion is that Community Health Centres may have the potential to improve access to health care, to enable introduction of a multi-disciplinary approach to primary care and to increase the provision of health promotion services.

We believe that evidence supporting Community Health Centres is sufficiently strong that the province should investigate their viability in the province of New Brunswick. Therefore, **we recommend:**

That the Department of Health and Community Services encourage the development of two pilot Community Health Centre projects.

That the communities be selected on the basis of limited local access to general practice physicians, or problems of access for certain groups within the population (possibly as identified through abnormal use of an urban hospital emergency department).

That one of these communities be a northern town that has a shortage of general practitioners and a community hospital.

That the other community be a southern city with a high density core area population of persons without a defined family physician - eg. Saint John.

That a community board be established to plan, develop and be responsible for operating such centres.

That a comprehensive evaluation be made of the impacts of these centres related to:

- **The effectiveness of primary care nurses as an initial point of contact for persons seeking care.**
- **The extent of public support.**
- **The level of physician satisfaction with salaried or sessional primary care practice.**
- **The effect on utilization of hospital in-patient and ambulatory services.**
- **The effect on utilization of Medicare and the cost of primary care.**
- **Changes in health risk behaviours by the population served.**

In addition we have concluded that the effectiveness of the existing Health Service Centres would be enhanced by a change away from their primary focus as a means of attracting full-time solo-practice physicians to small rural communities. As physician staffing is a perpetual problem for some of these communities and there is not always enough work for them to generate an acceptable income, changes should be made to their staffing and method of operation, **we recommend:**

That the essential, full-time staff involvement in the Health Service Centres be well-trained and experienced primary care nurses.

That the amount of physician involvement in these centres be determined by an assessment of the expected local workload and that contracts for service be arranged for either full-time or part-time physician service paid for on a sessional or salaried basis.

That these centres have good communication links with physicians and emergency services which are formally accountable for supporting the primary care nurse.

After several centres have been reorganized in this way, **we recommend:**

That the cost-effectiveness of Health Service Centres be evaluated according to the same factors identified for Community Health Centres.

Community-Based Treatment and Long Term Care

In view of the need to shift from in-patient to community based care as identified in Chapter 8, **we recommend:**

> **That in-home services continue to develop as a substitute for in-patient services, recognizing that the realization of their full cost-saving potential will require reductions in the current stock of hospital and nursing home beds in some areas.**
>
> **That the mechanism through which this development is planned and inpatient capacity is adjusted be the Premier's Council on Health Strategy in co-operation with the Area Health Planning Councils within the guidelines and service limitations as recommended in Chapter 11.**

This recommendation is particularly applicable to improving facilities for non-institutional care for the elderly, such as development of more residential options for older citizens as well as community based living support.

We were impressed with the broad range of services and the number of non-governmental agencies involved in community-based services. However, these services appear to have developed in an ad-hoc manner, often without an assessment of the impact on related services, and in particular the potential opportunity to reduce the need for the in-patient services of hospitals and nursing homes. Furthermore, they appear to lack coordination and are not effectively linked with the institutional system.

Considerable recent provincial effort has been expended on improving the continuity of care and coordination within the long-term care delivery system. We endorse the directions proposed, particularly the single point of entry into care concept managed by the Family and Community Social Services Division.

We have considered several alternative models for the co- ordination of the work of the many governmental and non- governmental groups involved in community-based long term care (including a proposal that it be done by the Extra-Mural Hospital) and have concluded that the area offices of the Family and Community Social Services Division are in the best position to perform this function. To ensure that they are effectively meeting the needs of the community, the Area Health Planning Council should have an advisory role. Therefore, **we recommend:**

> **That the area offices of the Family and Community Social Services Division of the Department of Health and Community Services co-ordinate the activities of all agencies included in community-based long term care services so as to provide a continuum of care and avoid unnecessary duplication of services.**
>
> **That, to enable the area offices to adequately co-ordinate, they become the single point of entry for all such services.**

That, in performing those functions, the area offices take the advice of their respective Area Health Planning Councils.

That Area Health Planning Councils carry out periodic reviews of the effectiveness of the community-based and long term care services in their areas.

Additional benefits could be achieved if the single point of entry also becomes the point of access to the in-home acute care services provided by the Extra-Mural Hospital (EMH). These benefits include: facilitating the transfer from the EMH to community-based long-term services for persons whose needs shift from acute to chronic care; the potential for reassessment of an individual's need for EMH services by an external party; the avoidance of duplication of coordination of the provision of non- nursing support services by two agencies (the EMH and the Family and Community Social Services Division); a single source of information on the extent of un-met needs for community services; and minimization of the unnecessary involvement of physicians in the care of patients. **We recommend:**

That admission to the Extra-Mural Hospital be through the same single point of entry as that for long term home care, i.e. the Family and Community Social Services Division.

At present, physicians are entitled to fees for admitting patients to the Extra-Mural Hospital and also for telephone consultations to EMH nurses. There are no fees for similar services in other forms of community or in-home care. This anomaly should be removed. Therefore, **we recommend:**

That the physician fees for admitting patients and telephone consultations to the Extra-Mural Hospital be the same as those for other home care services.

Some comments are necessary about the EMH as an alternative to acute care in hospitals. We acknowledge that these comments may or may not be confirmed by the evaluation currently being performed by Dalhousie University faculty members. To date this relatively new program has, in some cases, been introduced in areas of the province where relatively large numbers of acute hospital beds and often low hospital occupancy rates have diminished the potential for reducing utilization of in-patient services. Meanwhile, other areas with much greater pressure on hospitals, due to fewer hospital beds relative to their population than others, are still without the EMH or without an adequate service capacity within their EMH unit.

We believe that the expected impact of the EMH should be an actual reduction of hospital beds in operation in the areas of excess capacity and a method of reducing the need to add beds in areas with heavy pressure on existing hospital capacity. Otherwise such home care costs are added costs because beds that remain in operation will inevitably be filled. We are in favour of the expansion of the EMH and other forms of home care.

In some situations the EMH development in an area has taken place without sufficient consideration of existing community services, particularly the Victorian Order of Nurses, with the result that the viability of some of these agencies may be threatened. In addition **we recommend:**

> **That the Area Health Planning Councils determine if the EMH is the appropriate agency to provide long term home care services in underserviced areas and also the extent of expansion of EMH acute care. If the EMH does expand into long term home care, caution must be taken to ensure the range of government funded services is not expanded.**

CHAPTER 15

Measures to Eliminate the Over-Utilization and Reduce the Cost of Drugs

Introduction

The largest short-run potential for cost-reduction is within the various provincial prescription drug plans. Many reports of studies into the use of prescription drugs have described problems related to over-prescribing and the resulting hazards to patients. The evidence suggests that efforts aimed at reducing over-prescribing will not only lower drug costs, but they will improve the quality of treatment received by patients and reduce the need to hospitalize patients for drug-induced illnesses.

Thus changes to the Prescription Drug Programs, more so than those proposed for Hospital Services and Medicare, should be viewed as emphasizing improved quality of care with cost- containment as a secondary outcome. The recommendations we make will, reduce the rate of growth in the utilization of prescription drugs and should actually reduce the current volume of use. They are grouped within two categories according to the effect anticipated: quality improvement and quantity control; and cost-control.

Quality Improvement and Quantity Control

Four factors are considered in this discussion: the products to be covered under the programs; utilization review and product selection mechanisms; information systems technology to help manage the prescribing and dispensing of drugs; and specific recommendations for limiting the quantity of drugs dispensed.

Covered Products

A major consideration is the interchangeability between drugs supplied by the brand-name companies, sometimes called innovative or ethical (as represented by the Pharmaceutical Manufacturers Association of Canada) and those supplied as generic equivalents to these products (as represented by members of the Canadian Drug Manufacturers Association). In the past there has been some reason to doubt the manufacturing reliability of generic drugs and there is continuing scepticism within the medical profession. This is particularly so in New Brunswick where 25 percent of prescriptions are marked "no substitution", where as Saskatchewan has a comparable figure of 15 percent, Manitoba 2 percent and Ontario 1 percent.

We have made special study of the subject of control of drug manufacturing in Canada and have satisfied ourselves that the controls make all products on the market equally dependable. Interchange of products is safe and effective. Therefore, **we recommend:**

> **That the Department of Health and Community Services, through the Product Selection Committee, accept the federal Notice of Compliance determination as sufficient grounds for addition to the New Brunswick drug benefits list.**
>
> **Upon receipt from the federal government of follow-up information generated through their quality assurance program, the Product Selection Committee should review their decisions related to interchangeability.**

The result will be an expanded drug benefits list, providing a greater range of lower cost, equivalent products.

We note, and commend, the initiative of New Brunswick and other provinces to encourage Health and Welfare Canada to create a national agency responsible for determining the bio-equivalency of drug products.

The use of lower cost generic products has proven to be a major cost saving measure in the prescription drug programs and hospitals routinely make the maximum use of these products to save on pharmaceutical costs. More extensive use of generic products should therefore be encouraged. The result will be an expanded drug benefits list, providing a greater range of lower cost, equivalent products.

We have information indicating that physicians and the public are not well informed on the safety of interchangeability of generic products. This is a serious obstacle to achieving greater use of these products, and hence cost-containment. Therefore, **we recommend:**

> **That an extensive information program be undertaken to inform physicians and the public concerning the safety and effectiveness of generic products as a substitute for "brand-name" products.**

Review Mechanisms

New Brunswick has three formal groups involved in activities that relate to the Prescription Drug Programs: the Prescription Drug Program Advisory Committee; the Product Selection Committee; and the Drug Utilization Review Committee. Also, another committee within the Department of Health and Community Services, known as the Medicare Professional Review Committee deals with physicians and has the potential to monitor physician drug prescribing practices.

One function of the Product Selection Committee has been referred to in the preceding section on covered products. Three other functions should also be performed by these committees if the programs are to function effectively and efficiently, namely:

the establishment of scientific indications for the use of prescription drugs, particularly those of high cost where effective alternatives are available; the dissemination of treatment protocols to physicians; and the review and correction of inappropriate prescribing practices. Consequently, **we recommend:**

> **That the Prescription Drug Program Branch initiate discussions with the parties involved in the PDP Advisory Committee, the Product Selection Committee, the Drug Utilization Review Committee and the Medicare Professional Review Committee to determine the roles of each in respect of: the establishment of scientific evidence for the use of prescription drugs; the dissemination of treatment protocols to physicians; and the review and correction of inappropriate prescribing patterns.**

Use of Information System Technology

Many of the organizations who made presentations to us expressed concern for the extent of duplication in the prescribing of drugs and for the potential to dispense to individual patients drugs that adversely interact with each other. This arises from the situation where a patient can use more than one physician or more than one pharmacist, neither of whom is aware of the drugs being obtained from other sources. This is a very serious quality problem that is difficult to eliminate so long as beneficiaries have freedom of choice of physicians and pharmacies.

Information systems technology that would provide the mechanism to permit prescribers and/or dispensers to control these situations is now available. Through the use of this technology, pharmacists and physicians can have instant access to the patient's drug-use history, thus enabling them to prevent duplication and adverse reactions. There is also ample evidence that the on-line or "smart-card" technology is cost-effective. Prescription drug information should only be the first stage of development of accessibility to health services information for providers, therefore, the option selected should be capable of accommodating the addition of diagnostic procedure and other health services data on individuals. **We recommend:**

> **That the Department of Health and Community Services establish a task force to select and implement the type of information systems technology that is most relevant for the New Brunswick situation, with the initial emphasis on the Prescription Drug Program.**

Size of Prescriptions

The significant increase in the co-pay in recent years appears to have caused an increase in the size of prescriptions dispensed. Whereas the standard amount dispensed should be no more than a one-month supply, there is increasing tendency to prescribe and dispense a one-hundred day supply. This results in a number of problems, including: wastage or overuse when prescriptions turn out not to be required for such a long period; low compliance because contact is not maintained with a pharmacist or physician; the risk that prescription drugs with street value end up in the wrong hands; and reduced revenue from beneficiary co-payments. As the first step to overcome these problems, **we recommend:**

That prescriptions dispensed under the provincial programs be limited to a maximum of one month's supply.

A second recommendation dealing with the structure of the beneficiary co-payment under the Prescription Drug Program is presented in the section below on costs.

Other

A number of other changes that could affect quality of care or the quantity of drugs used in hospitals were brought to our attention. They deserve further investigation, therefore, we will mention them. One such opportunity to reduce the volume of medications used and also the number of adverse reactions resulting in abnormal lengths of hospital stays is through further involvement of hospital pharmacists in clinical consulting activities. The other is the unit-dose/I.V. additive system, similar to that now employed to advantage in New Brunswick nursing homes and in hospitals elsewhere.

Cost Control

The use of information systems technology, described above, has the potential to save the significant costs now associated with over-prescribing and the use of drugs with adverse reactions.

The major component of costs affecting the prescription drug programs is the manufacturer's selling price. There are several ways by which the province can affect this primary cost factor.

The most important of these is to have a list of products eligible for coverage through listing on the provincial drug benefits list. The mechanism to accomplish this was discussed in the section above on covered products. The importance of listing lower cost generic equivalent drugs has already been described. Of additional importance is the need for the PDP Advisory Committee to exercise discretion in the addition of new "brand- name" products to the drug benefits list. These new products are often considerably more expensive and they are not always any better than the product they purport to replace. Therefore, **we recommend:**

A review of the current policy of automatic coverage for new products registered for sale in Canada and establishment of a policy requiring manufacturers to apply for addition of their product to the provincial drug benefits list.

The second area is to reimburse pharmacies for drugs according to the least costly method. The current method, based on Actual Acquisition Cost (AAC), may be the most costly of all alternatives. Pharmacists are reimbursed on a basis that differs from pharmacy to pharmacy depending upon what they paid for the product, and they also benefit from a straight percentage mark-up on this price. There is, as a consequence, a disincentive to buy in bulk, or to be concerned about the price paid.

Under the Best Available Price (BAP) method, the amount reimbursed reflects largest package size available. Care must be taken to be sure the amount reimbursed reflects the lowest current market price. As now functioning in other provinces this price advantage has not been achieved. We believe this to be a lower cost alternative to the Actual Acquisition Cost method currently used if properly applied.

An alternative reimbursement method was suggested by the New Brunswick Pharmacists' Association. This alternative has been provisionally named the Lowest Available Common Cost method (LACC). As its name implies this method involves reimbursing pharmacies based upon a guaranteed manufacturer's price for a designated quantity of a drug or drug product (plus a negotiated mark-up). Its advantages are that: drug manufacturers are involved in the containment process (they must guarantee their price for six months); there is a single price list for billing and paying purposes, which also reduces the requirement for auditing; and comparative prices are available to prescribers, dispensers and beneficiaries. On the basis of these considerations, **we recommend:**

> **That the Prescription Drug Program Branch investigate the apparent advantages of alternatives to the Actual Acquisition Cost method of pharmacy reimbursement, in particular, the Lowest Available Common Cost method.**

As physicians play an important role in prescribing they need to know the costs of available products, consequently, **we recommend:**

> **That physicians should be kept informed of the prices of drugs contained in the drug benefits list.**

The most straight forward method for reducing the cost of the prescription drug programs is to cover only the lowest cost equivalent product even when another product has been prescribed. We are confident that if the steps are taken, as outlined in the section on Quality Improvement and Quantity Control, to ensure the quality of products listed on the formulary, that this will not place beneficiaries at risk. Physicians should still be permitted to prescribe any product, and beneficiaries should be entitled to the one they wish, but they should bear the cost of the difference between the product dispensed and the lowest cost equivalent product. We believe the only exception should be for beneficiaries who are on existing therapies. In this case physicians should be encouraged to discuss shifting them to a lower cost equivalent product, but the decision should remain with the patient. Therefore, **we recommend:**

> **That beneficiaries under the Prescription Drug Programs, with the exception of those on existing therapies, be entitled to financial coverage only to the level of the lowest cost interchangeable product.**

The current 50 cent bonus for dispensing generics should be discontinued as such an incentive would no longer be necessary.

The final area is that of program cost-sharing by beneficiaries through a co-payment at the point of dispensing. We believe beneficiaries should continue to share in this manner. However, as the other measures proposed in this chapter will have a considerable impact on both the quantity and cost of products dispensed, the co-payment will be a less important factor in program cost-containment. The effect of these measures should be a decrease in the average prescription price, hence, unless the co-payments are reduced, beneficiaries will be paying a larger share of total program costs. At present the co-payments are fixed amounts. For the seniors' program this amount is 22.2 percent of the average prescription cost and that for the income assistance program 7.9 percent. Such proportions should be maintained. We believe that the most appropriate method to achieve this is to base the co-payments on a percentage of the total prescription price. This also has the advantage of avoiding the need to adjust the co-payment as prescription drug prices rise. To reduce the burden on beneficiaries whose illnesses necessitate the prescribing of a relatively high priced product it would also be appropriate to introduce co-payments based on a sliding scale percentage of the total prescription price and to retain an annual ceiling for G.I.S. recipients. Therefore, **we recommend:**

> **That the beneficiaries of the Prescription Drug Programs share in the costs through a sliding scale co-payment, calculated to maintain the same average relationship to total costs as the current co-payments, with retention of the $120 annual ceiling for G.I.S. recipients.**

An example of such a co-payment structure is shown as follows:

Total Prescription Cost	Co-payment Seniors	Income Assistance
Up to $25	25%	8%
Second $25	15%	5%
Balance	10%	3%

CHAPTER 16

Measures to Eliminate Over-Utilization of Hospital Facilities and Physicians Services

Introduction

One of the major items requiring attention is the over-utilization of hospital and physicians' services. Attitudes seem to be - if it's there, use it - with little regard to cost. This cannot continue. The New Brunswick health care system cannot afford indiscriminate utilization of health services in cases where they are unnecessary or excessive.

During our studies many suggestions were made for controlling and hopefully eliminating over-utilization. Those considered to have the greatest cost saving potential are outlined in this chapter. That is not to say that there are no others; many others will emerge as government, providers and administrators direct their attention to utilization - containment activity.

Costs of hospital services can be reduced, but doing so necessitates several actions which are discussed in this chapter and in Chapter 17. These are:

- Using resources effectively and efficiently as discussed below under utilization management.
- Involvement of physicians in management as discussed under physician and management in Chapter 17.
- The efficient utilization of personnel since this is the biggest segment of hospital expenditures.

As a result of these changes, unnecessary hospital beds can be eliminated as also discussed in this chapter.

Utilization Management

Hospitals

A formalized system of utilization management is particularly desirable because of its emphasis on doing something about problems rather than merely identifying them. Utilization management aims specifically at providing the smallest amount of care that can adequately do the job. Reduction from current levels is accomplished

by ongoing monitoring of patients and activities so that undesirable delays or undesirable care can be minimized. Utilization management has been formally defined as follows:

> "Utilization management is a proactive, joint medical-staff/management process in which a hospital continually works towards maintaining and improving the quality of care through the effective use of resources. It is a commitment not only to review the hospital's utilization patterns but also to take action on any areas of inappropriate utilization"[1].

In New Brunswick there is insufficient attention being given to utilization management. Hospital boards are quite passive on the question and most hospitals do not have an individual assigned to coordinate utilization management activities. Some hospitals have utilization review committees with involvement of the medical staff, and some have regular utilization review rounds, however, the coordination role of the utilization review committees, even where they exist, is limited.

Medicus Canada made an extensive presentation to us on utilization management methods. The major provider groups and government officials were also present at this presentation. We have also examined the Guide for Hospital Utilization Review and Management in Ontario, a joint publication of the Ontario Hospital Association, the Ontario Medical Association, the Ontario Ministry of Health and the Hospital Medical Records Institute.

We recommend:

> **That a task force be established consisting of representatives of the Department of Health and Community Services, the New Brunswick Hospital Association, the New Brunswick Medical Society, and the Nurses Association of New Brunswick to implement, in all New Brunswick hospitals, a comprehensive utilization management system using the Medicus Canada Report and the Ontario Guide as patterns. This task force could, but need not, function under the direction of the Premier's Council on Health Strategy.**

It is unrealistic to expect hospitals to engage in effective utilization review without adequate computer-based information systems linking financial, clinical and utilization data on hospital operations. The management information system now developed, known as the MIS Guidelines, appears to provide this linkage. We support implementation of this system and **recommend:**

> **That the same task force take the steps necessary to implement the MIS Guidelines in all New Brunswick hospitals.**

Physicians

Also related to the control of utilization is the development of physician practice guidelines and the establishment of a formal process for the introduction of new

medical developments to the province. Such guidelines would define what is economically and scientifically acceptable to give proper quality care, including indications for appropriate use of expensive diagnostic procedures and equipment. This is necessary as a basis for the functioning of the practice audit and peer review activity of the Medicare Professional Review Committee, consequently **we recommend:**

That a Medical Practice Guidelines Committee be established to advise the Department of Health and Community Services, under the auspices of the College of Physicians and Surgeons of New Brunswick.

Alternative Methods of Treatment

We received many suggestions as to alternative methods of treatment designed to reduce the use of hospital beds. The most important of these are the following:

- Encourage ambulatory care by providing incentives to physicians to treat their patients without admitting them to hospital.
- The providing of hostels for those undergoing diagnostic and ambulatory treatment who are now admitted to hospitals where no hostels are available. These hostels should be open on weekends.
- Define the responsibility for chronic care between hospitals and nursing homes to maximize the use of lower cost facilities.
- Charge patients who have been medically discharged but remain in hospital awaiting the availability of nursing homes or other non-institutional services the same daily charge they would pay if they were in a nursing home.
- Permit nursing homes to provide some of the services that must now be performed in hospitals, but could be safely performed in nursing homes (eg. oxygen therapy and I.V. therapy).
- Refer selected surgical cases from major centres, where there are long waiting lists for operating rooms, to centres where operating rooms are under-utilized.

We recommend:

That alternative methods of treatment, designed to reduce the use of hospital beds, be further considered.

Incentives for Physicians

Any plan to reduce or eliminate over-utilization of expensive hospital facilities is more likely to be successful if it is accompanied by incentives. Therefore, **we recommend:**

That financial and other incentives be developed for physicians to encourage treatment in their offices or on an ambulatory care basis.

The following suggestions have been brought to our attention.

- A review system bringing peer pressure on physicians who over-utilize hospital facilities.
- Paying higher fees for scheduled office services in evenings and on weekends to relieve pressure on emergency departments.
- Establishing two levels of fees for the same service, - a fee for physicians who use hospital space, supplies and staff services that is lower than the fee for the same service provided in the physician's office.
- Co-operation by hospitals in the provision of supplies to enable more minor surgical work to be performed in physicians offices.
- Reimbursement penalties for physicians where their patients do not undergo procedures by the second day of their stay or where a patient exceeds the expected length of stay for the service being performed.
- Providing financial incentives to promote the development of operating room services outside existing hospitals as a substitute for hospital facilities.

Information and Analytical Activity

As pointed out in Chapter 12 there is insufficient information available in New Brunswick on the cost of specific services, treatments and procedures. This information is necessary for any program to prevent over-utilization.

The most important aspect of the lack of information is that physicians do not know the cost of what they prescribe or order and therefore are unable to participate in cost containment measures in their daily practices. As the central decision makers it is essential that they have this information. It is obviously in their best interests to avoid using costly procedures where they are not necessary, as the more the cost of patient treatment in institutions rises the greater may be the downward pressure on physicians' incomes.

The use of expensive services where they are not necessary does not always originate with the physician. We were told convincingly by physicians that, in many cases, patients insist on the use of the latest, very expensive, technology even where the physician considers it is not necessary. Physicians, understandably, find it difficult to resist such pressure. This means that the public must be made aware of the costs of services, treatments and procedures and have impressed upon them that continued inappropriate use of expensive services will, in the long run, jeopardize the viability of the health care system and hence their own ability to continue to receive quality service.

Therefore, **we recommend:**

> **That an extensive information program be undertaken to inform physicians and the public of the costs of diagnostic and treatment procedures as well as the extent of community based services and what use can be made of them to avoid the use of expensive facilities when it is not necessary.**

As to the cost of specific services, we believe this information is now available but perhaps not in usable form. Steps must be taken to enable the information to be used. In Chapter 12 we made recommendations to do this.

Elimination of Excess Hospital Beds in Areas with Low Occupancy Rates and/or High Admission Rates

As noted in Chapter 11 we believe that overall the province has more hospital beds than is necessary. This conclusion is based on consideration of the three factors that effect the need for beds: hospital admission rates; length of stay; and occupancy rates. There is considerable variability in these measures between the seven health regions as demonstrated below.

Region	1987-88 Average Length of Stay	1987-88 % Occupancy	1985-86 Admissions per 1000 Population
1	11.64	83.19	130.6
2	12.66	87.81	161.4
3	9.64	82.33	180.3
4	10.11	80.16	182.4
5	11.33	73.10	241.9
6	8.51	77.27	193.4
7	7.00	69.43	227.9
Total	10.59	81.88	172.1

Such variability alone demonstrates the need to reassess both the number and distribution of hospital beds in the province, and supports our recommendation for a reassessment of the health care system. Consequently, **we recommend:**

> **That the Premier's Council on Health Strategy establish a task force to identify and recommend the required number and appropriate distribution of hospital beds in the province, taking into account the impact of expanded community based service opportunities.**

A simple calculation of the potential for hospital bed reduction follows. If we assume: that a provincial average length of stay of 9.6 days is possible (based on the experience of Region 3, an area with a relatively complete range of primary, secondary and elevated secondary services); that overall hospital occupancy should reach 85 percent; and that with the Extra-Mural hospital and according to the current experience of several regions, an overall admission rate of 150 per 1000 population is

a reasonable target; then in the order of 3300 beds, rather than the current 4128 general hospital beds should be sufficient to meet the current needs.

> 710,000 population X 150 admissions/1000 population X 9.6 days/admission ÷ 0.85 beds occupied ÷ 365 days = 3295 beds

There is, therefore, a considerable theoretical hospital bed surplus now, and as demonstrated in the calculation below this will not change significantly due to population increases forecast to the year 2001.

> 736,000 population (2001 forecast) X 150 admissions/1000 population X 9.6 days/admission ÷ 0.85 beds occupied ÷ 365 days = 3415 beds

We believe this reduction in hospital beds will be possible in spite of the population aging impact identified in Chapter 3. It will only be possible, however, if the recommendations in Chapters 11, 13, 14, 16 and 17 are adopted.

Operational Audit/Base Budget Review Process

This review can be enhanced to achieve additional benefits. At present the review is done exclusively by the Department of Health and Community Services staff. Their continued involvement is important because they have the necessary knowledge of the operations of the hospitals, however, their role as fiscal agents for the government may compromise their ability to objectively determine the real resource requirements of hospitals.

There is also the potential for this review and audit process to incorporate the function of retrospective determination of the effectiveness of hospitals utilization management activities.

Therefore, **we recommend:**

> **That the hospital Operational Audit/Base Budget Review Process include review of utilization management effectiveness and that the operational performance component be improved.**
>
> **That independent parties, such as health services consultants and/or an expanded Auditor General's office be participants and perhaps even take the lead role in this program.**

[1]Ontario Hospital Association, Ontario Medical Association, Ontario Ministry of Health and Hospital Medical Records Institute. Guide for hospital Utilization Review and Management in Ontario. Ontario, 1988.

CHAPTER 17

Improvements to the Organization and Operation of Hospitals

Introduction

Hospitals are complex and costly operations. How well they do in controlling their spending and in making choices among the many program and service options available will have a large bearing on the cost of health services. Hospitals are very labour intensive, with fully three-quarters of their budgets expended on staff wages and benefits. Clearly staffing and compensation levels are a major determining factor of the level of expenditures within the hospital system.

Physicians play a significant role in the determination of the extent to which the services of hospitals are utilized, and consequently the cost of operations.

We will focus primarily on the division of labour in hospitals and the role of physicians in hospital management, but will also propose some direct measures for controlling the costs of the materials, supplies and equipment used in hospitals.

The Division of Labour

We are concerned about the apparent trend to eliminate Registered Nursing Assistants (RNA's) from the range of staff providing direct patient care in the province. Most hospitals seem to be operating with a much higher proportion, (some as high as 100 percent) of Registered Nurses (RN's) to RNA's than that assumed in the determination of hospital budgets, which is 60/40. The consequences for cost are considerable, as the annual salary differential is in the order of $7000.

This trend can be justified to some extent by the increase in acuity of patients treated in hospitals, but it also is considered to have a great deal to do with the nursing "professionalization" movement. With the recent decision of the Nurses Association of New Brunswick to follow the national trend of requiring a baccalaureate degree to enter the practice of nursing by the year 2000, the financial implications of the declining utilization of RNA's is an even greater concern (assuming that BN's will demand higher salaries than RN's).

In order to retain the participation of Registered Nursing Assistants in hospital patient care, **we recommend:**

That the Department of Health and Community Services cooperate with the New Brunswick Hospital Association, the Nurses Association of New Brunswick and the Association of Registered Nursing Assistants of New Brunswick in funding independent research on the determination of cost-effective nursing models in a variety of hospital settings, including the Extra-Mural Hospital.

That senior management and nursing administration in each hospital reassess their current mix of nursing staff, in order to ensure its appropriateness to the cost-effective meeting of patient care requirements.

That the Department of Advanced Education and Training undertake a complete review of the RNA education program to ensure that the knowledge and skills of graduates are consistent with changing requirements.

Another area to address is the role differentiation between physicians and nurses. We heard in the course of our meetings with various interested parties that, inspite of the expressed intention to do otherwise, nurses are functioning less independently in hospital settings than was previously the case and are not performing duties for which they are capable. We understand there was a committee involving nurses, hospitals and physicians at one time responsible for defining appropriate delegation of function from physicians to nurses. This committee should be reestablished and similar committees would also be appropriate within hospitals. Therefore, **we recommend:**

That the delegation of function from physicians to nurses be reviewed and negotiated at the provincial and at individual hospital levels between hospitals, physicians and nurses, under the leadership of the New Brunswick Hospital Association, with the intent of formally defining a broader scope of practice for nurses.

Workload Measurement and Staffing Models

The daily assignments of staff, particularly nurses, as well as the annual budgeting for hospitals, would be improved with the introduction of a standard method to assess the clinical workload in hospitals. In the long run this will produce hospital cost savings. Such nursing workload systems are in an advanced stage of development in many provinces, but implementation has not been a high priority in New Brunswick hospitals. We acknowledge the proposals for the introduction of such systems as contained in the Action Plan on Quality of Worklife Issues of Nurses in New Brunswick[1], however, **we recommend:**

That the schedule proposed by the Nursing Resources Advisory Committee for the study and implementation of nursing workload measurement systems be advanced. Such systems to be put in place in all hospitals as soon as possible.

That further attention be given to the development of workload standards and performance monitoring for the non- nursing personnel in hospitals.

Pastoral Care

The Canadian Council on Health Care Facilities Accreditation states that, "Pastoral Services shall be available to patients and their families, as required, for spiritual and moral guidance to supplement their physical and mental care".

The New Brunswick Hospital Association recognizes that pastoral care is an integral part of patient care. Today we are deeply immersed in a dynamic secular society, that is experiencing a spiralling advance in technology, theory, and practice unmatched in any age. It is imperative that we refocus the priorities in the health care system from the technological to the personal.

To ensure hospital care deals with the totality of the person including the spiritual aspect, something that health professionals alone cannot effectively provide, **we recommend:**

That Pastoral Care be recognized as a legitimate component of hospital staffing and budgets.

Communications Technology

As mentioned in Chapter 15 we believe there is considerable opportunity to improve the efficiency of health services delivery through the use of available communications technology. From the perspective of hospital services, this potential should be developed for several purposes, including:

- the rapid transmission of patient referral information and the results of diagnostic procedures between hospitals to minimize delays in treatment and duplication of procedures.
- inter-facility sharing in the delivery of staff education programs.
- ease of access to the specialized medical consultation and diagnostic services in regional and tertiary facilities (current examples are electrocardiograms done in Saint John and Moncton for the whole province and echocardiograms done for Saint John Regional Hospital paediatric patients at the Izaak Walton Killam Childrens' Hospitals in Halifax).
- to enable the consolidation of specialized services in fewer centres.

In order to fully examine such opportunities to shorten hospital stays and minimize the duplication of costly specialized services, **we recommend:**

That the Department of Health and Community Services establish a task force to identify further opportunities to cost-effectively use communications technology and to prepare a plan for its implementation in New Brunswick hospitals.

That this task force involve the New Brunswick Hospital Association, the New Brunswick Medical Society, and external advisors with expert knowledge in the field of health services communications technology.

The Cost of Equipment, Materials and Supplies

The acquisition of drug, medical/surgical and other materials and supplies constitutes one-quarter of hospital expenditures - a total of $126.7 million in 1987-88. In addition, the Department of Health and Community Services has budgeted $9.2 million in 1989-90 for the purchase of replacement equipment, approximately three-quarters of the total amount hospitals will spend on equipment.

The quantity of supplies used is closely related to the volume of services provided, hence the methods proposed in this report to curtail hospital utilization will have a direct impact on these costs. We believe there are additional opportunities for cost savings by the use of group purchasing. Therefore, to ensure that hospitals obtain the best possible prices for the materials and supplies they require, **we recommend:**

That the Department of Health and Community Services assist the New Brunswick Hospital Association in a determination of additional opportunities for the group purchasing and standardization of products used in hospitals.

While the amount expended on equipment purchases appears relatively insignificant, it is important to recognize that its availability generates a need for staff to operate and maintain it and for materials and supplies related to its use. A number of comments we heard lead us to conclude that there is considerable need to improve performance in the selection, maintenance and extent of use of clinical equipment.

New Brunswick is not in a position to independently undertake a comprehensive assessment of new technology to determine the appropriateness of its introduction to the hospitals of this province. The province, therefore, should continue to advocate the establishment of a national centre for technology assessment.

At the provincial level, however, more effective procedures are required to decide when and where to add new technology and to establish and disseminate indications for its appropriate use to physicians and hospitals. We recognize, at present, there is very limited ability to assess cost-effectiveness of new equipment; there is almos. a total lack of measurement criteria. **We recommend:**

That the Premier's Council on Health Strategy lead in the establishment of an integrated province-wide approach for the introduction of new technology in cooperation with the Department of Health and Community Services, the Institute of Bio-Medical Engineering at the University

of New Brunswick, the New Brunswick Hospital Association and the College of Physicians and Surgeons of New Brunswick.

That no new technology be introduced unless there is demonstrated need and that, to the extent possible, its cost-effectiveness has been considered.

Maintenance and upgrading is important to obtain the maximum value from all equipment purchases. We were impressed by the activities of the regional clinical engineering services in some regions. There appears to be additional potential for such services and, therefore, **we recommend:**

That the New Brunswick Hospital Association establish a task force, involving regional clinical engineering services' staff and the Department of Health and Community Services, to identify how to obtain added benefits from clinical engineering services.

Resource Sharing

An area for specific attention in this regard is medical laboratory services. The trend in recent years has been to increasing decentralization of the provision of sophisticated procedures. Concerns have been raised about the negative effect such a trend may have on the quality and efficiency of laboratory procedures. The extent to which decentralization can occur is also limited by the difficulty in attracting highly specialized laboratory medical and scientific personnel to areas outside the major provincial centres. There is also a large volume of non- urgent highly technical analysis that could be consolidated in a small number of laboratories. **We recommend:**

That the Department of Health and Community Services initiate a review of the opportunities to cost-effectively consolidate medical laboratory services while maintaining high standards of quality and timeliness in the availability of results.

A second area with potential for improved resource sharing is medical specialists' services. We have discussed the subject of a reduced number of health regions and the need to update the Hospital Services Master Plan in Chapter 11. This is recommended in recognition of the difficulty of attracting specialists to many areas of the province and the need to ensure that they have a sufficient referral population base to build a viable practice. To ensure that persons throughout the province have reasonable access to these specialists requires that greater attention be paid to the formalization of specialty consulting service arrangements to primary care physicians outside the regional centers. **We recommend:**

That the Department of Health and Community Services, in consultation with the New Brunswick Hospital Association and the College of Physician and Surgeons of New Brunswick, develop guidelines for regional hospitals and their specialist physicians to provide consultation services to primary care physicians and district and local hospitals within the same region.

We are also concerned about the amount of service duplication existing between hospitals located in close proximity to one another. Recommendations made elsewhere in this report particularly those related to the Premier's Council on Health Strategy and the Area Health Planning Councils mentioned in Chapter 11 will address this problem.

Physicians and Management

Throughout this report we have paid considerable attention to the importance of decisions made by physicians which affect the volume of activities in hospitals, and thus control hospital costs. We have proposed methods to address these through participation in utilization management. A further requirement is to increase the extent to which the chiefs of service are made responsible for fiscal management in their clinical fields. As the interventions of hospital care become more numerous and more complex, this becomes increasingly important.

Both organizational models and resources to compensate physicians for such involvement are required to put the concept of physician responsibility into practice. Canadian examples exist at the Health Sciences Centre in Winnipeg and the Sunnybrook Hospital in Toronto. **We recommend:**

> **That the Department of Health and Community Services, the New Brunswick Hospital Association, the College of Physician and Surgeons of New Brunswick and the New Brunswick Medical Society jointly develop organizational structures and physician management compensation packages for the further involvement of physicians in management relevant to the three levels of hospitals (regional, district and community).**

Hospital Revenues

Although the Canada Health Act penalizes provinces who impose user fees for medically necessary services there are, nevertheless, other sources of additional revenue for hospitals to pursue. These include rental of existing space for a variety of purposes, such as:

- Office space for Public Health, Mental Health and Extra-Mural Hospital units (with the added advantage of easier communication).
- Physicians' or dentists' private offices.
- Certain commercial operations - e.g., pharmacies and banks.
- The accommodation of Community Health Centres.

Hospitals will require an incentive to develop these opportunities and this could be retention of a portion of the revenue as income that is not directed to operating expenses.

We recommend:

That hospitals be encouraged to develop income producing alternatives for the use of existing space and that, as an incentive they be permitted to retain fifty percent of such revenue.

[1]The Nursing resources Advisory Committee. Action Plan on Quality of Worklife Issues of Nurses in New Brunswick. September, 1988.

CHAPTER 18

Measures to Reduce the Cost of Medicare

Introduction

In New Brunswick, the Medicare Program pays for a few services provided by optometrists and dentists, but over 99 percent of the cost of the program is incurred in the payment for physician services. It can be reduced to a very simple formula, namely, cost equals fee times utilization of service. If costs are to be controlled, there are only two factors to be considered: fees and utilization.

Fees

In the briefs that were submitted to us, we repeatedly heard the recommendation that the method of paying physicians should be changed. The most common recommendation was that physicians should be paid on a salary basis. Occasionally, it was recommended that they should be paid on a capitation basis. While most of these recommendations were supported by the argument that these methods would reduce the economic incentive to see large volumes of patients and less expensive professionals would take over the provision of some non-treatment services such as education and immunizations, most did not make a convincing argument for saving money on a short-term basis. Nor is there support for short-term savings to be found in either the literature or simple economic reasoning.

New Brunswick has the fourth lowest fee schedule and the third lowest medicare cost per capita in Canada. The average income per physician in the province is the second highest in Canada, but only because of the high number of services provided, i.e., because of high productivity. In short, New Brunswick purchases a high volume of services from a relatively small number of physicians at very favourable prices compared with the rest of Canada.

While the overall number of physicians in New Brunswick is approaching an ideal level, there are still significant deficiencies in geographic, linguistic, and specialty areas. To significantly alter physician remuneration is to risk serious damage to recruitment programs and the possibility of an outflow migration. Inter-provincial physician movement is still easy.

For these reasons, we do not recommend any significant alteration in the method of paying for physician services. However, we must recognize the validity of other arguments made in support of changing the methods of paying physicians. Many

briefs pointed out that the primary role of the physician is the treatment of people who are sick. Many physicians have difficulty in providing the amount of time for the treatment of sick patients that they should and would like to give. Meanwhile, they are spending time on services that could be provided by other professionals. Considering these factors, **we recommend:**

> **That the fee-for-service system be continued but that additional opportunities be given for physicians who wish to work on a salaried or sessional basis in the primary care alternatives recommended in Chapter 14.**

Utilization

Causes of Increases

In this discussion, the term utilization is used to mean the "total use of physicians' services". Utilization has increased steadily with an overall average annual increase of 4.9 percent and an increase of 27 percent in the 5 years from 1982 to 1987. The budgetary impact of this increase is $21.5 million. Based on 1982 utilization rates this amount would be sufficient to serve an additional 140,000 people in New Brunswick. This increase in utilization may result from three components:

> Increased Utilization per Patient. Analysis of New Brunswick figures show that this has increased by an average of 4.5 percent annually between 1982 and 1987, a total of 24.8 percent.
>
> Increased Production of Total Services by Previously Practicing Physicians. This means physicians who have been practicing in their present location and type of practice for three years or more. The evidence indicates that this component also has been increasing significantly in recent years, by 2.9 percent in 1986-87 and 0.8 percent in 1987-88.
>
> Increase in the Number of Physicians. This is the largest component of increased utilization. New physicians who established in the province in 1986-87 added 4.8 percent to overall physician utilization in their first full year of practice (1987-88). Even though the population of the province has increased very little (by about one percent per year) since 1971, the number of physicians in the province has increased about three percent annually. The gap between these growth rates has been widening in the last five years. We have estimated that, in terms of today's dollars, the cost of new physicians entering practice during the last five years is approximately $13 million.

We believe that it is obvious that the cost of Medicare cannot be controlled or even significantly influenced without controlling the number of doctors practicing in the province. However, this must not be done arbitrarily. Redistribution of physicians presently in the province will not occur and recruitment will be necessary to provide for areas which are still in need. Those areas of need must be identified and, realistically, this must be done with the assistance of the medical profession.

Control of Utilization

It must be acknowledged that physicians and patients will always perceive there to be a shortage of doctors. As long as we continue to increase the number of physicians in the province, the use of their services will increase. It does not matter whether this is demand-driven or supply-driven. It is inevitable in an open-ended system such as ours. Physicians must accept that they will always practice under the pressure and stress of demand for more service than they can provide. The pattern which has developed over the last two decades of responding to this by recruiting additional physicians must be controlled.

The measures to control utilization are:

- The establishment of manpower requirements with as much accuracy as possible, as referred to in Chapter 13. This must be to the satisfaction of the practicing physicians as represented by the New Brunswick Medical Society.

- Data on utilization must be collected carefully, extracted regularly and shared with the Medical Society. There is an opportunity for the medical profession to undertake peer review of apparent problems in utilization of specific treatments or procedures and in individual physician practice patterns.

- Utilization control may eventually become a component in the negotiations of Medicare contracts. Methods to combine utilization levels and growth in physician fees have been experimented with, or are in force in British Columbia, Saskatchewan, Manitoba, Ontario and Quebec[12].

- Agreement must be reached on the relative importance of each of the components contributing to increased utilization.

We believe that the emphasis should be on developing an effective system of peer review to control utilization rather than going so far as other provinces. We are confident that the New Brunswick medical profession can do this effectively.

We recommend:

That the Department of Health and Community Services and the New Brunswick Medical Society initiate an ongoing joint review of patterns of utilization, including prescribing practices, using data obtained as recommended in Chapter 12.

That the Medicare Professional Review Committee and the Drug Utilization Review Committee expand their activities to develop and put into practice further measures to control inappropriate utilization through a system of peer review.

That utilization data be discussed during the negotiation of Medicare contracts.

[1]Jonathan Lomas, Catherine Fooks, Thomas Rice, Roberts J. Labelle, "Minding our Ps and Qs: Simultaneous Control of Price and Quantity of Physician Services in Canada". Ontario, 1989.

[2]Health Policy Research Unit, Division of Health Services Research and Development, Office of the Coordinator of Health Sciences, The John F. McCreary Health Sciences Centre, The University of British Columbia, "Squaring The Circle: Reconciling Fee-For-Service With Global Expenditure Control". Vancouver, August, 1988.

CHAPTER 19

Relations with Other Jurisdictions

Introduction

Many of the changes to the health care system necessary to control costs cannot be done by New Brunswick alone. Some can best be addressed on a regional basis and some on a country-wide basis.

Out-of-Province Hospital Payments

Many New Brunswick patients are now receiving treatment outside of the province. This includes certain high cost, specialized services, such as transplants, as well as other hospital services not available in New Brunswick. The objectives are to ensure that hospital services provided in other Canadian jurisdictions are financially accessible to New Brunswickers and to ensure that eligible New Brunswick residents receiving hospital services out of Canada are provided with financial assistance. The 1989-90 budget for out-of-province hospital payments is $29.4 million. This program is essential in view of New Brunswick's limited capability to provide some tertiary services.

The Izaak Walton Killam Children's Hospital is a good example of the use of one centre of excellence to provide tertiary care services to the Maritime provinces where it is questionable whether each province could provide the same facility. The IWK provides highly specialized paediatric diagnosis, treatment, research and education on an inter-provincial basis. Approximately 25 percent of its patients are from New Brunswick and Prince Edward Island and those provinces contribute funding at about that level. In 1985-86, 809 separations and 11,205 days resulted from New Brunswick referrals. Its board has multi-provincial representation and it proposes to expand its French language capability. The IWK is thus providing a service to New Brunswickers at a level which New Brunswick cannot support due to clinical volume and cost.

Two matters which have to be addressed more effectively are the need to identify the services which are to be provided on an inter-provincial basis and the need for an adequate transportation service.

Regional Health Cooperation

Health care activities requiring the support of a larger critical mass of population and financial resources than present in New Brunswick can best be provided in cooperation with other provinces, particularly the other Maritime provinces and Quebec. We have identified four areas that should be addressed on an interprovincial basis, as set out in the recommendation below. **We recommend:**

That interprovincial cooperation be improved in the areas of:

- **Decisions on the nature and location of tertiary services.**
- **Human resources planning and training.**
- **Health services research.**
- **Formalization of New Brunswick's arrangements with medical schools.**

The Council of Maritime Premiers could be the appropriate vehicle for some of these interprovincial activities.

We understand that similar cooperative arrangements are being considered by the Nova Scotia Royal Commission on Health Care.

Interprovincial Exchange of Information and Ideas

At the meeting of the Health Commissions/Councils held in Alberta, attended by some commissioners and the Executive Director, there were discussions on the need for a forum for informal exchange of information and ideas between provinces, in a non-governmental setting. This should involve planners, providers and consumers.

We believe this would be useful to New Brunswick and therefore, **we recommend:**

That New Brunswick participate in the development of a forum for interprovincial exchange of health care information and ideas in a non-governmental setting.

That the Premier's Council on Health Strategy be the vehicle for the province's participation in that process.

Federal Government Participation and Financial Assistance

It is self-evident that the federal government by insisting on a universal, publicly-funded health care system, with the limitations established by the Canada Health Act while reducing its real contribution to health care costs, has placed a severe burden on New Brunswick's ability to fund the system.

As an alternative to, or in addition to, the recent request by provincial premiers that the federal government increase its contribution to health care costs through reinstatement of the formula tied directly to increases in the gross national product (GNP), **we recommend:**

That consideration be given to proposing:

A federally-funded research initiative to examine the effects of a broad range of public policies on health status, to improve the effectiveness with which available health money is spent and to explain to the public the need for control of health service costs.

Federal assistance in funding the Innovation Fund recommended in Chapter 11.

Federal financial support for non-health activities that are shown to be more cost effective in improving health status than are expenditures on sickness and injury services - eg. occupational health and environmental improvements.

If current levels of transfer payments are deemed acceptable in times of economic expansion they should be supplemented by increased contributions when GNP fails to grow, or grows very slowly.

CHAPTER 20

Health Promotion and Education

Introduction

Recommendations in the preceding chapters deal with the organization and delivery of health care services. In Chapter 5 we referred to the many factors outside the system itself which affect the health of a population. This chapter deals with addressing these factors aimed at the improvement of health. The promotion of a healthy population, and education designed to that end, is a vast subject; we can only scratch the surface.

A Canadian Hospital Association report[1] proposed the following definition of health promotion, as an extension of the definition of the World Health Organization

> "Health promotion is the process of enabling people to increase control over, and to improve, their health."
>
> "Health promotion is predicated on a commitment to foster self-esteem, purposeful living, energy, coping and adapting to changes. Health promotion activities are directed at both the individual's life style and the physical economic and political environment in which he or she lives."

A landmark publication of Health and Welfare Canada[2], described the challenges of health promotion as follows:-

> "In summary, health promotion implies a commitment to dealing with the challenges of reducing inequities, extending the scope of prevention, and helping people to cope with their circumstances. It means fostering public participation, strengthening community health services and coordinating healthy public policy. Moreover, it means creating environments conducive to health, in which people are better able to take care of themselves, and to offer each other support in solving and managing collective health problems."

In the long run, the extent of utilization and costs of health care will be determined by the effectiveness of efforts to improve lifestyles and reduce risk exposures. The cost savings are well in the future but they are none the less real. A comprehensive

program of health promotion and education is essential to achieve these long term benefits. Its objective is, in short, a healthy population.

The Ontario Premier's Council on Health Strategy' expressed the impact of health promotion on cost control as follows:

> "At present we devote only a small percent of health expenditures to health promotion and disease prevention. We may be at the point where additional dollars spent on curative care will not yield pro-portional increases in health. In contrast, there is evidence that many health promotion and disease prevention programs are likely to prove more efficient and cost-effective in the long term. We can achieve better health by creating better balance between treatment, and prevention and health promotion."

Recent Societal Trends

Recent years have seen a trend to a more active interest in maintaining health. More people are conscious of engaging in healthy activities and living healthy life styles. This is demonstrated by increased activity of group health and exercise facilities, greater interest in healthy diets and weight control, a reduction in smoking and a greater interest in smoke free environments, more attention to the problems of alcohol and drug abuse, more interest in, and frank discussion of the problems of sexually transmitted diseases and many others.

On the other hand, a large segment of the population continue to neglect their health. This is evidenced by wide spread use of "junk foods" instead of healthy diets, lack of exercise, obesity, heavy smoking (particularly teenage girls), continuation of sexual activities without any precautions to avoid disease, reliance on health care institutions such as emergency departments as a substitute for people looking after themselves, etc.

Thus, although some recent trends have produced greater health consciousness in the population, much remains to be done.

Responsibility

All persons and groups involved in health care services must make a commitment, and cooperate, to achieve an effective health promotion and education program. As stated in the Canadian Hospital Association report referred to above,

> "Since health promotion is a process designed to enhance decision making capacities and to equip individuals with the necessary skills and a belief in their autonomy, and since it is not a separate or distinct service, health promotion can be incorporated into many aspects of health care delivery and can take place anywhere along the health- illness continuum"

Responsibility does not stop with those involved in the health care system. Everyone involved in the many other activities which effect healthy lifestyles and a safe living and working environment have an important part to play.

The Health and Welfare, Canada, publication referred to above, states:

> "All policies which have a direct bearing on health need to be coordinated. The list is long and includes, among others, income security, employment, education, housing, business, agriculture, transportation, justice and technology. It will not be an easy undertaking to coordinate policies among various sectors, all of which obviously have their own priorities. We must bear in mind that health is not necessarily a priority for other sectors. This means that we have to make health matters attractive to other sectors in much the same way that we try to make healthy choices attractive to people"

Government

Governmental agencies must take the lead in initiating and planning a health promotion and education program. Government cannot do it alone but must give directions and provide some, but not all, of the funding. The potential of public policy to influence peoples activity is considerable.

The key player is the Department of Health and Community Services which already devotes considerable resources, such as its Public Health Program, to health promotion activities. The social services aspect of its mandate is also important in health promotion. It is important that the activities of this department in areas outside of the hospital, medicare and drug program not be down-graded; they should be support and extended. It is not good economics to do otherwise.

Many other departments are, or should be, actively involved in the program. The Department of Education obviously plays a key role. Other departments include Environment, Income Assistance, Labour, Transportation, Agriculture, Fisheries, Housing and Justice.

Health Care Institutions

The role of health care institutions in health promotion is succinctly described in the Canadian Hospital Association report referred to above as follows

> "Adopting a health promotion philosophy in health care facilities, requires a change from the paradigm of a medical model to a holistic health model, from a mission of providing medical care to one of improving health, from a culture based on physician primacy to one of individual primacy, and from core processes for managing medical and other professional inputs or services to focusing on and managing health outcomes."

"Health care facilities can promote the health of their communities through such things as integrating their services with other services being offered in the community, involving the community in health planning decisions, supplementing needed services such as home care and outreach programs, and advocating change in environments which are not conducive to health."

Physicians

As in all matters relating to health, physicians have an important role in counselling patients on their health and how to live healthy life styles. Their participation in all health promotion activities, whether governmental, educational, institutional, private or public, is essential to ensure that those conducting the program are directing their efforts in the right direction. Basic medical advice is necessary for any health promotion program.

Community Groups and Private Institutions

These groups can, and do, make great contributions to a health promotion and education program. There are many organizations, societies, community groups and similar organizations involved in many facets of our society. Most of them touch lifestyle activities, some more then others. Many exist for specific purposes related to health, health promotion and the promotion of healthy lifestyles. The activities of such groups should be promoted, extended and supported. Some government funding is already directed to them. This type of funding, when actual or potential health benefits can be demonstrated, is money well spent in the interest of long term savings in direct health care expenditures.

Business and Industry

This segment of society is an important participant in the program, particularly in maintaining a healthy environment and safe working conditions and practices and in health-related advertising. Business and industry must continue and expand their role in promoting healthy lifestyles.

Role of The Premier's Council on Health Strategy

The Premier's Council on Health Strategy is ideally suited to take a leadership role in health promotion and education. It brings together representatives of government, health providers and the public, all the key players in an effective program. It is thus in a position to give direction and encouragement to all those responsible for the program.

Key Targets of A Health Promotion and Education Program

Like any public relations program, it is important to identify the persons and groups to whom it should be directed. The following covers our concept of the more important ones.

Low-Income Groups

It is a well-recognized phenomenon, established by many studies, that health problems are more prevalent in low-income groups than in high-income groups. Life expectancy is shorter, disabilities are more widespread, and there is a higher chance of contracting disease and a greater risk of institutionalization.

The problems of New Brunswick in this respect are greater than some other areas. The recent New Brunswick government paper, "Toward 2000" reported that one in seven of the population live below the poverty level, 10 percent of the population lives on social assistance, two-thirds of the heads of households on social assistance have less than a grade 10 education, 17,000 young people between the ages of 15 and 24 are unemployed and half of the youths entering the work force do so without completing their studies.

Although the problem of alleviating these conditions is primarily an economic one, it is readily apparent that the low-income groups must be a prime target of a health promotion and education program. A great deal of health promotion and education activity, public and private, is being directed to these groups. This should be promoted and expanded.

School Children

It is axiomatic that what we learn in school stays with us for the rest of our lives. Good health habits learned early in life lead to healthy lifestyles. That is why health education in the schools is a critical component of any health promotion and education program.

A recent survey in the United States[4] reported that youngsters in grades 3 through 12 who have had at least three years of health education are less likely to drink alcohol, smoke cigarettes, take drugs or ride with a driver who had been drinking than are children of the same age who have had one year or less of health education. They are also more likely to exercise regularly, wear seat belts, eat breakfast every day and clean their teeth regularly and to say they had made changes to improve their health and that they have a lot of control over their own health.

The New Brunswick Department of Education has in place a comprehensive health education program beginning with the Healthful Living Program in grades 1 to 6 and extending to more advanced subjects in junior high school and high school. This program should be supported and expanded to ensure that it reaches all school children and funded at a sufficiently high level that it is accomplishing its purpose.

Parents

It is of no use to educate children in healthy lifestyles if the parents fail to cooperate in applying in the home the lessons learned in school. We suspect there are many children in New Brunswick who go from school to homes where there are poor diets, no breakfast, child neglect and unhealthy living conditions because their parents

have not been educated in living a healthy lifestyle. Part of the health promotion and education program should address this problem.

Pre- and Post-Natal Care and Baby Care

The Department of Health and Social Services provides some programs of this nature and some are also given by private organizations such as the Victorian Order of Nurses. They take the form of pre-natal classes, post-natal classes, well baby clinics and pre-school clinics. This program also should be supported and expanded to ensure that mothers and their young babies do not become an unnecessary strain on the health care system.

The Elderly

The special problems of this group require special attention. Our senior citizens require access to information and instruction in how to deal with such problems as the need to keep active, the proper use of medication, the danger of over use of prescription drugs and chronic conditions and the disabilities which they cause. They require counselling services and the knowledge of where and how to get assistance when needed.

Disabled Persons

The special problem of this group must obviously be included in a health promotion and education program.

Public Generally

There are many other areas relating to health that must be addressed. Public and private institutions must be alerted to them so that action can be taken. Much is now being done and these activities should be supported and expanded.

The following is a list of some specific topics:

- Transportation Safety - promoting safe conditions to prevent highway deaths and injuries, a prime opportunity for significant short run improvement.
- Environmental Hazards - a major consideration should be identification, reduction and ability to cope.
- Stress. This is important to health - how do we live with it.
- Alcohol and Drug Abuse. Much is already being done in this area.
- Hazards of Smoking. Much has been done, as witness the significant reduction of the smoking population.
- Occupational Hazards - promotion of safe working conditions, safe working habits - again much is being done.

- Recreational Activities - exercise to stay healthy.
- Nutrition - proper eating habits.
- Fitness Counselling - There is a need for public availability of objective, non-commercial, fitness and nutrition counselling to counteract advertising designed to sell materials and programs of dubious value.

Studies and Research

Health promotion and education has been the subject of much research and many published studies, including those referred to in this chapter. It is not necessary for New Brunswick to do it over again. We should take advantage of these studies to assess the need for further action and what that action ought to be. All that is necessary is to relate existing research to New Brunswick conditions and act to put a program in place.

Such adaption to New Brunswick should include the epidemiological research necessary to identify the leading cause of mortality and morbidity in the province, as well as the identification of effective strategies to address them and the evaluation of the effectiveness of program initiatives. This activity should be a high priority for the Provincial Epidemiologist.

Recommendations

As mentioned above, we believe that the Premier's Council on Health Strategy should be the driving force behind health promotion and education. Therefore, we **recommend**

That the Premier's Council on Health Strategy set up a task force to

- **conduct a comprehensive review of existing research,**
- **review existing health promotion and education programs existing in New Brunswick,**
- **determine New Brunswick's needs for improvement,**
- **implement and direct action by health institutions, health providers, educators and other provincial, community and private groups to improve New Brunswick's health promotion and education program, and**
- **recommend a mechanism for a permanent direction for the program.**

[1]Health Care Facilities Role in Improving Health Through Health Promotion, Research and Development Department, Canadian Hospital Association, July 1988.

[2]Hon. Jake Epp, Achieving Health for All, November, 1986.

[3]Ontarios' Premier's Council on Health Strategy. A Vision of Health - Health Goals For Ontario. Ontario..

[4]Metropolitan Life Foundation and Louis Harris & Associates, 1988.

Summary of Recommendations

Chapter 11
Improvements to the Organization and Administration of the Health Care System

1.
That the number of regions be reduced and in particular, we consider it unnecessary to have Regions 5, 6 and 7 continue to exist as three regions; they should be combined into one, with the possibility that part or all of Region 7 could be combined with Region 1.

2.
That the province's ambulance and transportation requirements be reassessed to ensure that consolidation of services will not create hardship for those living at some distance from the named centres.

3.
That the Hospital Services Master Plan should reflect the services which each hospital should provide, not what it does provide and that the master plan, once reassessed and adopted, must be followed.

4.
That the range of services now paid for be reviewed as there appear to be some for which it is questionable whether they should be provided at government expense, for example certain employment and recreational related screening services.

5.
That the Northern Services Development Program be continued.

That, as northern services improve, service capacities in the major centres, Saint John, Moncton and Fredericton be reassessed in relation to the number of services they are now providing to residents of the north for non-tertiary care services.

6.
That a Premier's Council on Health Strategy be established, to be chaired by the Premier. Other members should include four ministers (one whom should be the

Minister of Health and Community Services who should be the vice-chairman), representatives of five provider groups (physicians, nurses, hospital administrators, pharmacists and community health service groups) and five consumer representatives of whom one should be a representative of labour and one a representative of hospital trustees.

7.
That in order to fulfil its mandate, the New Brunswick Premier's Council will be expected to:

- Select specific goals to achieve the improved health of New Brunswick's residents and establish specific targets and priorities which can be measured, evaluated and implemented;

- Plan the future development of the health care system of New Brunswick so that health services and a continuum of health care are provided in a rational, cost-effective manner;

- Initiate innovative approaches to health care which are sensitive to the diverse needs of the province and which foster personal responsibility for health, the appropriate use of resources by individuals and health professions, and which enhance linkages between health and related human services;

- Initiate specific public policy actions which are required to improve the health of New Brunswick's residents including health promotion and those which are beyond the traditional jurisdiction of the formal health care system.

- Make periodic reports to the government of New Brunswick and make them public.

8.
That Area Health Planning Councils be established throughout the province, comprising those areas which logically form sub-systems within the five regions as proposed. Their function would be to coordinate and rationalize health care services in their area, considering all available resources and needs, and to provide a comprehensive continuum of care within the guidelines and service limitations established by the Premier's Council and the Department of Health and Community Services.

9.
That the Premier's Council establish a task force, as a matter of priority, to take the lead in developing structures for all provider groups to work more closely together.

10.
That hospital trustees and the government make a commitment to close hospital beds and refrain from adding beds (when it can be done without affecting quality of care) in order to achieve the cost-savings which can result from implementation of the recommendations of this report.

11.
That the Premier's Council on Health Strategy, the Area Health Planning Councils and the Department of Health and Community Services conduct ongoing evaluation of all existing programs within their spheres of responsibility and an evaluation of all proposed new programs and acquisitions of new equipment, including their estimated annual cost to the system.

12.
That the policy of not funding hospital deficits be continued.

That, when opportunities arise in-year to more quickly implement the Northern Services Development Plan and the Hospital Services Master Plan, there be formal budget adjustments for the affected hospitals.

13.
That hospitals be permitted to retain a larger portion of their surplus, at least 50 percent, to make it financially worthwhile for them to operate below budget.

14.
That some means be sought to enable hospital budgets to be available at the beginning of the hospitals' fiscal year.

15.
That Operational Audit/Base Budget Reviews of each hospital be done on a three year cycle.

16.
That, when it becomes feasible, tertiary services should be funded as separate programs.

17.
That, once physician manpower supply is met and the Prescription Drug Program is brought under control, the government attempt to keep its annual increases in health expenditures at no more than the rate of inflation. For this purpose, an appropriate inflation rate should be developed to reflect the growth in the cost of inputs to health care services in the province.

That after a cap on spending has been established, every attractive new program or service will, if it costs money, be eligible for implementation only if the place in the system where the necessary money can be found has been identified.

18.
That a specified part of the health care budget, perhaps 1/4 of 1 percent or $2,225,000, should be set aside in an Innovation Fund administered by the Department of Health and Community Services to assist hospitals and other sources of care who wish to improve the effectiveness of their program or facility.

Chapter 12
Health Services Research to Support Effective Decision-Making

19.
That the Planning and Evaluation Division of the Department of Health and Community Services improve its capacity to obtain, interpret for application in New Brunswick and disseminate the results of research conducted elsewhere.

That New Brunswick encourage development of and financially support a health services research agency for the Atlantic or Maritime Provinces.

That the Department of Health and Community Services create a supportive environment for research and evaluation.

That the operational responsibility for health services research be delegated to the Executive Director, Planning and Evaluation, who will be responsible for aggressively developing the function and the use of the results throughout the Department.

That a position be added to the Planning and Evaluation Division at the Director level for a person with well- developed methodological and quantitative research skills and that this position be supported by dedicated research assistants and ease of access to data.

That the research agenda be initially determined and periodically updated by the Department of Health and Community Services with input from the provider organizations.

That staff outside the Planning and Evaluation Division who hold relevant positions, or who have strong research skills, be involved in the health services research activity, e.g., the Provincial Epidemiologist.

That the Department ensure sufficient research capacity to meet the data requests of provider organizations, the Premier's Council on Health Strategy, the Area Health Planning Councils, and consultants engaged by them to perform studies.

Chapter 13
Determination of Appropriate Physician Manpower Targets and Distribution

20.
That the Department of Health and Community Services should immediately establish a task force to prepare a detailed physician manpower plan for the Province of New Brunswick. This plan should include

1. Identification of needs of under serviced areas
2. Specialist requirements for all hospitals
3. Maximum allowable numbers by specialty grouping in all areas
4. Method for continuing surveillance and amendment of planned numbers
5. Method of control

That fifty percent of the membership of the task force be appointed by the New Brunswick Medical Society.

Chapter 14
Improvements to and Expansion of Non-Institutional Health Care Services

21.
That the Department of Health and Community Services encourage the development of two pilot Community Health Centre projects.

That the communities be selected on the basis of limited local access to general practice physicians, or problems of access for certain groups within the population (possibly as identified through abnormal use of an urban hospital emergency department).

That one of these communities be a northern town that has a shortage of general practitioners and a community hospital.

That the other community be a southern city with a high density core area population of persons without a defined family physician - e.g., Saint John.

That a community board be established to plan, develop and be responsible for operating such centres.

That a comprehensive evaluation be made of the impacts of these centres related to:

- The effectiveness of primary care nurses as an initial point of contact for persons seeking care
- The extent of public support
- The level of physician satisfaction with salaried or sessional primary care practice
- The effect on utilization of hospital in-patient and ambulatory services
- The effect on utilization of Medicare and the cost of primary care
- Changes in health risk behaviours by the population served

22.
That the essential, full-time staff involvement in the Health Service Centres where physician staffing is a perpetual problem be well-trained and experienced primary care nurses.

That the amount of physician involvement in these centre be determined by an assessment of the expected local workload and that contracts for service be arranged for either full- time or part-time physician service paid for on a sessional or salaried basis.

That these centres have good communication links with physicians and emergency services which are formally accountable for supporting the primary care nurse.

23.
That the cost-effectiveness of Health Service Centres be evaluated according to the same factors identified for Community Health Centres.

24.
That in-home services continue to develop as a substitute for in-patient services, recognizing that the realization of their full cost-saving potential will require reductions in the current stock of hospital and nursing home beds in some areas.

That the mechanism through which this development is planned and inpatient capacity is adjusted be the Premier's Council on Health Strategy in co-operation with the Area Health Planning Councils within the guidelines and and service limitations as recommended in Chapter 11.

25.
That the area offices of the Family and Community Social Services Division of the Department of Health and Community Services co-ordinate the activities of all agencies included in community-based long term care services so as to provide a continuum of care and avoid unnecessary duplication of services. That, to enable the area offices to adequately co-ordinate, they become the single point of entry for all such services.

That, in performing those functions, the area offices take the advice of their respective Area Health Planning Councils.

That Area Health Planning Councils carry out periodic reviews of the effectiveness of the community-based and long term care services in their areas.

26.
That admission to the Extra-Mural Hospital be through the same single point of entry as that for long term home care, i.e. the Family and Community Social Services Division.

27.
That the physician fees for admitting patients and telephone consultations to the Extra-Mural Hospital be the same as those for other home care services.

28.
That the Area Health Planning Councils determine if the EMH is the appropriate agency to provide long term home care services in under-serviced areas and also the extent of expansion of EMH acute care. If the EMH does expand into long term home care, caution must be taken to ensure the range of government funded services is not expanded.

Chapter 15
Measures to Eliminate the Over-utilization and Reduce the Cost of Drugs

29.
That the Department of Health and Community Services, through the Product Selection Committee, accept the federal Notice of Compliance determination as sufficient grounds for addition to the New Brunswick drug benefits list.

Upon receipt from the federal government of follow-up information generated through their quality assurance program, the Product Selection Committee should review their decisions related to interchangeability.

30.
That an extensive information program be undertaken to inform physicians and the public concerning the safety and effectiveness of generic products as a substitute for "brand-name" products.

31.
That the Prescription Drug Program Branch initiate discussions with the parties involved in the PDP Advisory Committee, the Product Selection Committee, the Drug Utilization Review Committee and the Medicare Professional Review Committee to determine the roles of each in respect of: the establishment of scientific evidence for the use of prescription drugs; the dissemination of treatment protocols to physicians; and the review and correction of inappropriate prescribing patterns.

32.
That the Department of Health and Community Services establish a task force to select and implement the type of information systems technology that is most relevant for the New Brunswick situation, with the initial emphasis on the Prescription Drug Program.

33.
That prescriptions dispensed under the provincial programs be limited to a maximum of one month's supply.

34.
A review of the current policy of automatic coverage for new products registered for sale in Canada and establishment of a policy requiring manufacturers to apply for addition of their product to the provincial drug benefits list.

35.
That the Prescription Drug Program Branch investigate the apparent advantages of alternatives to the Actual Acquisition Cost method of pharmacy reimbursement, in particular, the Lowest Available Common Cost method.

36.
That physicians should be kept informed of the prices of drugs contained in the drug benefits list.

37.
That beneficiaries under the Prescription Drug Programs, with the exception of those on existing therapies, be entitled to financial coverage only for the lowest cost interchangeable product.

38.
That the beneficiaries of the Prescription Drug Programs share in the costs through a sliding scale co-payment, calculated to maintain the same average relationship to total costs as the current co-payments, with retention of the $120 annual ceiling for G.I.S. recipients.

Chapter 16
Measures to Eliminate Over-Utilization of Hospital Facilities and Physician Services

39.
That a task force be established consisting of representatives of the Department of Health and Community Services, the New Brunswick Hospital Association, the New Brunswick Medical Society, and the Nurses Association of New Brunswick to implement, in all New Brunswick hospitals, a comprehensive utilization management system using the Medicus Canada Report and the Ontario Guide as patterns. This task force could, but need not, function under the direction of the Premier's Council on Health Strategy.

40.
That the same task force take the steps necessary to implement the MIS Guidelines in all New Brunswick hospitals.

41.
That a Medical Practice Guidelines Committee be established to advise the Department of Health and Community Services, under the auspices of the College of Physicians and Surgeons of New Brunswick.

42.
That alternative methods of treatment, designed to reduce the use of hospital beds, be further considered.

43.
That financial and other incentives be developed for physicians to encourage treatment in their offices or on an ambulatory care basis.

44.
That an extensive information program be undertaken to inform physicians and the public of the costs of diagnostic and treatment procedures as well as the extent of community based services and what use can be made of them to avoid the use of expensive facilities when it is not necessary.

45.
That the Premier's Council on Health Strategy establish a task force to identify and recommend the required number and appropriate distribution of hospital beds in the province, taking into account the impact of expanded community based service opportunities.

46.
That the hospital Operational Audit/Base Budget Review Process include review of utilization management effectiveness and that the operational performance component be improved.

That independent parties, such as health services consultants and/or an expanded Auditor General's office be participants and perhaps even take the lead role in this program.

Chapter 17
Improvements to the Organization and Operation of Hospitals

47.
That the Department of Health and Community Services cooperate with the New Brunswick Hospital Association, the Nurses Association of New Brunswick and the Association of Registered Nursing Assistants of New Brunswick in funding independent research on the determination of cost-effective nursing models in a variety of hospital settings, including the Extra-Mural Hospital.

That senior management and nursing administration in each hospital reassess their current mix of nursing staff, in order to ensure its appropriateness to the cost-effective meeting of patient care requirements.

That the Department of Advanced Education and Training undertake a complete review of the RNA education program to ensure that the knowledge and skills of graduates are consistent with changing requirements.

48.
That the delegation of function from physicians to nurses be reviewed and negotiated at the provincial and at individual hospital levels between hospitals, physicians and nurses, under the leadership of the New Brunswick Hospital Association, with the intent of formally defining a broader scope of practice for nurses.

49.

That the schedule proposed by the Nursing Resources Advisory Committee for the study and implementation of nursing workload measurement systems be advanced. Such systems to be put in place in all hospitals as soon as possible.

That further attention be given to the development of workload standards and performance monitoring for the non- nursing personnel in hospitals.

50.

That Pastoral Care be recognized as a legitimate component of hospital staffing and budgets.

51.

That the Department of Health and Community Services establish a task force to identify further opportunities to cost-effectively use communications technology and to prepare a plan for its implementation in New Brunswick hospitals.

That this task force involve the New Brunswick Hospital Association, the New Brunswick Medical Society, and external advisors with expert knowledge in the field of health services communications technology.

52.

That the Department of Health and Community Services assist the New Brunswick Hospital Association in a determination of additional opportunities for the group purchasing and standardization of products used in hospitals.

53.

That the Premier's Council on Health Strategy lead in the establishment of an integrated province-wide approach for the introduction of new technology in cooperation with the Department of Health and Community Services, the Institute of Bio-Medical Engineering at the University of New Brunswick, the New Brunswick Hospital Association and the College of Physicians and Surgeons of New Brunswick.

That no new technology be introduced unless there is demonstrated need and that, to the extent possible, its cost-effectiveness has been considered.

54.

That the New Brunswick Hospital Association establish a task force, involving regional clinical engineering services' staff and the Department of Health and Community Services, to identify how to obtain added benefits from clinical engineering services.

55.

That the Department of Health and Community Services initiate a review of the opportunities to cost-effectively consolidate medical laboratory services while maintaining high standards of quality and timeliness in the availability of results.

56.
That the Department of Health and Community Services, in consultation with the New Brunswick Hospital Association and the College of Physician and Surgeons of New Brunswick, develop guidelines for regional hospitals and their specialist physicians to provide consultation services to primary care physicians and district and local hospitals within the same region.

57.
That the Department of Health and Community Services, the New Brunswick Hospital Association, the College of Physician and Surgeons of New Brunswick and the New Brunswick Medical Society jointly develop organizational structures and physician management compensation packages for the further involvement of physicians in management relevant to the three levels of hospitals (regional, district and community).

58.
That hospitals be encouraged to develop income producing alternatives for the use of existing space and that as an incentive, they be permitted to retain fifty percent of such revenue.

Chapter 18
Measures to Reduce the Cost of Medicare

59.
That the fee-for-service system be continued but that additional opportunities be given for physicians who wish to work on a salaried or sessional basis in the primary care alternatives recommended in Chapter 14.

60.
That the Department of Health and Community Services and the New Brunswick Medical Society initiate an ongoing joint review of patterns of utilization, including prescribing practices, using data obtained as recommended in Chapter 12.

That the Medicare Professional Review Committee and the Drug Utilization Review Committee expand their activities to develop and put into practice further measures to control inappropriate utilization through a system of peer review.

That utilization data be discussed during the negotiation of Medicare contracts.

Chapter 19
Relations with Other Jurisdictions

61.
That interprovincial cooperation be improved in the areas of:
- Decisions on the nature and location of tertiary services.
- Human resources planning and training.
- Health services research.
- Formalization of New Brunswick's arrangements with medical schools.

62.
That New Brunswick participate in the development of a forum for inter-provincial exchange of health care information and ideas in a non-governmental setting.

That the Premier's Council on Health Strategy be the vehicle for the province's participation in that process.

63.
That consideration be given to proposing:

A federally-funded research initiative to examine the effects of a broad range of public policies on health status, to improve the effectiveness with which available health money is spent and to explain to the public the need for control of health service costs.

Federal assistance in funding the Innovation Fund recommended in Chapter 11.

Federal financial support for non-health activities that are shown to be more cost effective in improving health status than are expenditures on sickness and injury services - e.g., occupational health and environmental improvements.

If current levels of transfer payments are deemed acceptable in times of economic expansion they should be supplemented by increased contributions when GNP fails to grow, or grows very slowly.

Chapter 20
Health Promotion and Education

64.
That the Premier's Council on Health Strategy set up a task force to

- conduct a comprehensive review of existing research,
- review existing health promotion and education programs existing in New Brunswick,
- determine New Brunswick's needs for improvement,
- implement and direct action by health institutions, health providers, educators and other provincial, community and private groups to improve New Brunswick's health promotion and education program, and
- recommend a mechanism for a permanent direction for the program.

Appendix "A"

Briefs Submitted

A. Kathleen Donahue
Advisory Council on the Status of Women
Andrew P. Aalund
Association of New Brunswick Registered Nursing Assistants
Blue Cross of Atlantic Canada
Canadian Mental Health Association of New Brunswick
Canadian Rehabilitation Council for the Disabled - New Brunswick Branch
Canadian Cancer Society
Claude Roussel
Donald F. Everett
Dr. Everett Chalmers Hospital
Faculty of Nursing University of New Brunswick
Foyer Sainte-Antoine
G. G. Ferguson
Guy LeBlanc
Hampton Medical Group
Health Management Services
J. Edgar Lagace
J. O. Sundin, Professional Corporation,
General Surgeons
John McQuinn, M.D.
John DeVona
La Societe des Acadiens et Acadiennes du Nouveau-Brunswick
Lloyd D. Secord
May Pedersen
Meditables Inc.
Nashwaaksis Medical Clinic
New Brunswick Hospital Association
New Brunswick Division Canadian Association of Medical Radiation Technologists
New Brunswick Medical Society
New Brunswick Federation of Labour
New Brunswick Denturists Society Inc.
New Brunswick Nurses Union
New Brunswick Senior Citizen's Federation Inc.
New Brunswick Society of Laboratory Technologists
New Brunswick Society of Clinical Chemists
New Brunswick Association of Optometrists
New Brunswick Association of Nursing Homes Inc.
New Brunswick Pharmacists' Association
New Brunswick Extra-Mural Hospital
Nurses Association of New Brunswick
Paul Dean
PCS Canada Inc.
People Care Inc.

Pharmaceutical Manufacturers Association of Canada
Premier's Council on the Status of Disabled Persons
R. E. Tweeddale, P. Eng.
R. L. Smith
Regional Clinical Engineering Services
Restigouche Hospital Center
Saint John Ambulance
Saint John Regional Hospital
Shoppers Drug Mart
St. Joseph's Hospital
Stephen Weyman, M.D.
The New Brunswick Chiropractic Association
The Carleton Memorial Hospital
The Canadian Drug Manufacturers Association
The Moncton Hospital
Thomas Barry, M.D. and Carolyn Barry, M.D.
UpJohn Health Care Services
Victorian Order of Nurses, Saint John
Victorian Order of Nurses, New Brunswick Inc.
Violette Benhamed, Jeanne Comeau, Hilda Comeau

Appearances Before the Commission

Andrew Aalund
Association of New Brunswick Registered Nursing Assistants
Blue Cross of Atlantic Canada
Canadian Cancer Society
Chaleur Regional Hospital
Dr. Everett Chalmers Hospital
Emery Fanjoy - Council of Maritime Premiers Secretariat
Faculty of Nursing University of New Brunswick
Ginette Gagne Koch, M.D - The Moncton Hospital
Health Management Services
J. O. Sundin, M.D, Professional Corporation, General Surgeons
Kenneth Michalko, M.D., Acting Chief, Division of Biopharmaceutic Evaluation, Health and Welfare Canada
La Societe des Acadiens et Acadiennes du Nouveau-Brunswick
May Pedersen
Meditables Inc.
New Brunswick Federation of Labour
New Brunswick Nurses Union
New Brunswick Medical Society
New Brunswick Hospital Association
New Brunswick Pharmacists' Association
New Brunswick Senior Citizen's Federation Inc.
New Brunswick Extra-Mural Hospital
Nurses Association of New Brunswick
PCS Canada Inc.

Pharmaceutical Manufacturers Association of Canada
Regional Clinical Engineering Services
Restigouche Hospital Center
Saint John Regional Hospital
Saint Joseph Hospital
Shoppers Drug Mart
The Canadian Drug Manufacturers Association
The Moncton Hospital
UpJohn Health Care Services
Victorian Order of Nurse, Saint John
Victorian Order of Nurses, New Brunswick Inc.

Appendix "B"

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